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The Journal

of the

Michigan State Medical Society

The Official Organ of the State
and County Medical Societies

Published Monthly Under the Direction of the Council

VOLUME XXIV
JANUARY TO DECEMBER, 1925

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GRAND RAPIDS, MICHIGAN

The Journal
OF THE
Michigan State Medical Society
ISSUED MONTHLY UNDER THE DIRECTION OF THE COUNCIL

Vol. XXIV. GRAND RAPIDS, MICH., JANUARY, 1925 No. 1

Original Articles

SOME CONTRIBUTIONS OF CHEMISTRY TO THE ART AND SCIENCE OF MEDICINE*

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At the beginning of each academic year in this medical school, it is the custom for a member of the faculty to address the faculty and student body on some phase of medicine, usually on some phase of that branch of medical science which he represents, to point out recent advances, and to emphasize anew important older aspects. This morning, as a representative of the chemical group in the medical sciences, I purpose to present to you briefly some considerations concerning the contributions of chemistry to medicine in the past, and to point out some lines along which advances may be expected within the next decade. If, in my discussion, I follow the tendency of those who have preceded me in former years and overemphasize, perhaps, the importance of the contributions in my own field of specialization, chemistry, and appear to minimize the contributions in other fields, I may, I trust, be pardoned. To every man in science who is worth his salt, his own field appears most important, most fascinating, and also most baffling. It is to those, who, in the words of the old negro dialect song of the period when ragtime was the prevalent form of popular melody, stand "outside lookin' in" that the solutions of the problems of science often appear simple, rather than those who are "inside lookin' out."

Paracelsus was among the first to recognize the relation of chemistry to medicine, and in those days when alchemy, the transmutation of the baser metals to gold, was the main goal of chemistry, declared that "the object of chemistry is not to make gold but to prepare medicines." But the chemistry of the seventeenth and eighteenth centuries was as crude as the medical science of that period and practitioners of that period looked with scorn on the possible contributions of the chemist to medicine. The conditions a century ago are well exemplified by a quotation from a well known medical writer, written in 1805. The author after discussing medical science and particularly medical education, thus pays his tribute to chemistry:

> "But none of the preliminary sciences has assumed so arrogant a place as chemistry. It is, indeed, a fact that chemistry explains certain appearances of the healthy as well as the diseased body, and is a guide to the preparation of various medicines; but it is incredible how often it has usurped the right of explaining all physiological and pathological phenomena, and how much it has distinguished itself by authorizing this or that medicine."

and again:

> "Chemistry should never attempt to offer an explanation of the abnormal performances of the functions in the diseased body, since it is so unsuccessful in explaining them in the healthy state. When it predicts what, according to its laws, must happen, then something quite different takes place; and if the vitality overmasters chemistry in the healthy body, how much more must it do so in the diseased, which is exposed to the influence of so many more unknown forces. And just as little should chemistry undertake to give a decision upon the suitableness or worthlessness of medicines, for it is altogether out of its sphere of vision to determine what is properly healing or hurtful, and it possesses no principles and no standard by which the healing efficacy of medicines, in different diseases can be measured or judged of." (Hahneman, Aesculapius in the Balance).

The beginnings in the modern field of research of physiological chemistry may be said to date from Liebig, the father of modern chemistry, whose contributions both to analytical and organic chemistry paved the way for the establishment of the first two independent laboratories and professorships in Physiological Chemistry at Tubingen in 1845 (held by Schlossberger and later by Hoppe-Seyler in 1861) and at Strassburg in 1872 (held by Hoppe-Seyler). I mention the establishment of these two pioneer laboratories abroad in order to point out

*An address delivered at the opening assembly of the Medical School of the University of Michigan on September 23, 1924.

the similar rise of independent laboratories in this country. Prior to 1880, medical chemistry, as it was called, was descriptive and not dynamic, with little of value to contribute to medicine. In 1882, Russell H. Chittenden was appointed to the first independent professorship of Physiological Chemistry in this country, in the Sheffield Scientific School of Yale University, and the following year Dr. Victor C. Vaughan was appointed to a similar position here in this medical school. *So far as I have been able to discover, Professor Vaughan was the first man to hold a professorship in Physiological Chemistry, as we now understand the term, on a medical faculty in this country.* (Italics ours, Ed.) Under the leadership of these two able men, the importance of chemistry in medical education was rapidly recognized and the early conception of medical chemistry soon gave way to a dynamic conception, the idea of function. The older "medical chemistry" concerned itself chiefly with the detection of a few simple substances, of pathological interest mainly, in urine and the identification of the more common poisons. The idea of chemistry as an aid in the solution of the problems of dynamics of the normal organism is comparatively new. This development may be illustrated by a reference to a few fundamental problems which have in recent years engaged the attention of many workers and which will still remain unsolved, such as (1) autolysis, the relation of enzymes to endo-cellular processes, (2) the chemistry of the protein molecule in relation to absorption and circulation of this important food stuff, (3) the problem of the interrelationships between food stuffs, (4) the mechanism, considered from the chemical point of view of anaphylaxis, immunity to disease, natural and acquired, and of related phenomena, (5) the interrelation of function, that is, of the secretion of the cells and of one organ or tissue on the cells of a remote organ or tissue, the chemistry of the endocrine organs, (6) the chemistry of the reactions involved in the transmission of the nervous impulse through the delicate mechanism of the nerve cell.

The new and rapidly developing science of organic chemistry soon offered valuable aid, particularly in the studies of the chemistry of drugs, natural and synthetic, and more recently, within the last 15 years, the branch of analytical chemistry has contributed much to medical science, particularly to the diagnosis of the disease.

From among the many and varied phases of the application of chemistry to medicine, I have chosen for brief discussion, four, all of which have been or will be, in my opinion, far-reaching in their influence: (1) the role of chemistry in the development of synthetic drugs; (2) the application of chemical procedures to the isolation and purification of the active principles of glands, particularly of the glands of internal secretion; (3) the utilization of modern methods of micro-analysis as an aid in diagnosis and prognosis; (4) the development of the comparatively new science of nutrition.

The use of synthetic chemical products as drugs may be said to have developed in two stages: the first, the discovery, more or less accidentally in most cases, of the therapeutic value of well known chemical substances; and the second, the systematic attempt to develop organic compounds which should have definite desirable pharmacological action. Most striking of the examples of the first are the discovery of the anesthetic properties of ether and chloroform resulting in the utilization of anesthesia in surgical procedure. Ether has been known since its discovery by Valerius Cordus in 1540, but not until 1846 was its use as an anesthetic successfully acchieved by Morton in an operation by Dr. J. C. Warren at the Massachusetts General Hospital. Chloroform, for whose synthesis we are indebted to Liebig and others in 1831, was introduced into anesthesia by Sir James Simpson in Edinburgh in 1847. Within a year the administration of anesthetics was a universal practice throughout the civilized world. Dr. W. W. Keen, the dean of American surgeons thus comments on the effects of the introduction of anesthesia:

> "It is a striking commentary on the immediate results of anesthesia to learn that, in the five years before the introduction of ether only 184 persons were willing to submit themselves to such a dreadful ordeal in the Massachusetts Hospital, an average of 37 operations per annum, or 3 per month. In the five years immediately succeeding its introduction, although the old horror could not be overcome, 487 operations, or almost 100 annually, were performed in the same hospital. During the last year (1898) in the same hospital 3,700 operations were performed."

Surgery, freed of its horrors, developed along lines hitherto undreamed of, and made those rapid strides which prepared it for the next great advance, the era of antisepsis, ushered in by utilization of phenol, another well known chemical, by Lord Lister in 1867. The further development of anesthesia is a matter of history and reference need only be made to the recent introduction of ethylene as a general anesthetic and to the use of the various local anesthetics, notably the synthetics, novocaine and butyn.

Not only surgery, but medicine profited by the more or less accidental discovery of the

therapeutic properties of well known chemicals. Chloral hydrate has been synthesized by Leibig in 1832, but it was not until 1869 that Liebreich, who thought it probable that in the organism chloral would be hydrolyzed to chloroform and thus act as an anesthetic, discovered the hypnotic action of chloral, at a time when morphine was the only known hypnotic. The later introduction of the ethyl-sulfones, sulfonal, trional, etc., by Baumann and Kast in 1888, and the discovery of the hypnotic urea derivatives, chief of which is veronal or barbital, by Emil Fischer, one of the greatest organic chemists of all time, and Von Mering in the early part of this century, are important milestones in the development of therapeutic chemicals.

The second phase, that of deliberate attempts to synthesize chemicals with definite pharmacological action, the modern chemotherapy, although foreshadowed by such work as that of Baumann and Fischer and Von Mering, already mentioned, was initiated by the brilliant work of Paul Ehrlich at the Royal Prussian Institution for Experimental Therapeutics at Frankfurt about 1905. Ehrlich was thus referred to by one of his teachers:

"When Robert Koch was shown through the laboratory at Breslau by one of the professors, his attention was called to a young student working at a desk covered with bottles of dyestuffs. 'There is our little Ehrlich,' said the professor, 'he is a first-rate stainer of tissues, but he will never pass his examination.' The prediction about the examinations came perilously near fulfillment; Ehrlich made bad flunks and it is hinted that he never would have received his degree had he not made a discovery, namely, the existence of the peculiar type of leucocyte which is known to us as the "plasma-cell." The faculty reasoned that it would be improper to keep so promising and original a worker indefinitely in an undergraduate position, and it is suspected that they mitigated the rigor of the examinations in order to relieve their own embarrassment." (Herter, C. A., Journ. Am. Med. Assn., LIV, 423, 1910).

The work of Ehrlich and others in the discovery of the various trypan dyes which destroyed the protozoan parasites of nagana and other diseases caused by trypanosomes, and of salvarsan, has stimulated countless other laboratories and workers in attempts to synthesize substances which will destroy lower forms without injury to the hosts. The problem of vital staining and tuberculosis is one of the most fascinating but as yet unsuccessfully solved of these problems.

In the field of the purification and isolation of the active principles of the glands of internal secretion, three advances may be noted particularly. Although the color reactions given by epinephrin, the active principle of the adrenal glands, had been known since the middle of the nineteenth century, it was not until 1901 that its isolation in crystalline form was accomplished independently by Takamine and Abel. In 1904 its structure was established and its synthesis was effected. In 1915, twenty years after the discovery of iodine in thyroid tissue by Baumann, Kendall announced the isolation of a substance, thyroxin, from thyroid, which on administration to patients, gave results similar to those with thyroid extract itself, and which is probably closely related to, if not actually, the active principle of the thyroid. The marked sensitivity of this substance to slight changes in the reaction of the medium, to carbon dioxide, and to other reagents hindered its isolation over a long period of years. The most recent of the achievements in work of this type, the successful preparation of the active principle of the pancreas, insulin, by the Toronto group and the improvements in its purification by a number of other workers is one of the best illustration of the wholesome trend in medicine today toward team work between chemist, physiologist and clinician. Whether the recent developments along the lines of the nature of the ovarian hormone by Allen, Doisy and their co-workers, will prove of equal importance with the other discoveries mentioned remains to be seen. A marked advance in the solution of the problem of the interrelations of the ductless glands will be made when the nature of their active principles is definitely known.

The changes in analytical procedure which have made possible the newer contributions of analytical chemistry to medical diagnosis have been well discussed by one who has himself been a leader in the development of these modern methods, Otto Folin, of the Harvard Medical School:

"In the science of biochemistry, too, we have had a constant succession of new methods, and a very important phase of the biochemical research of today is still the development of analytic technic. In the last few years there have been very great changes in the methods used for analysis of urine, while the advancement in the field of blood analysis has been even more remarkable.

The foremost characteristic of the successful modern analytic method is speed. With reference to the value of time, the biochemical investigator of today is no less keen than are the leaders in modern industry. Many of the older methods in use, say fifteen years ago, as, for example, Salkowski's method for uric acid, the Morner-Sjoquist method for urea, or the Schlosing method for ammonia, were accurate enough, but they were slow and they did not encourage the application of chemical methods to the study of clinical problems.

When a physician had to wait four days before he could learn how much ammonia a given urine contained, he did not bother himself very often about determinations of ammonia. And, as a matter of fact, this good old method for the determination of ammonia was so little used that investigators gradually forgot how the method must be employed in order to yield correct results.

Today any analytic method in urine analysis

which cannot be finished within less than two hours stands in need of further revision. Most of the common determinations in urine and blood will become from fifteen to thirty minute methods for single determinations, and also several determinations will be made with little extra expenditure of time.

Almost every material reduction in the time and labor required for a given determination is followed by an increase in the number of investigators who make researches based on that determination. But it is only when we come down to the very shortest of biochemical methods that they begin to appeal to clinicians, and it is, I think, no small triumph for the modern technic that clinicians have begun to compete with laboratory specialists in the fields of research suggested by these new methods."

"A second characteristic of modern analytic technic, as distinguished from the old, is the tendency to make the methods microchemical. Formerly a full twenty-four hour quantity of urine was scarcely large enough to permit a complete analysis. Today 10 cc. of urine is abundant for a determination of all the more common nitrogenous constituents. We still demand 24 hour samples of urine, and have gone on the assumption that we must have them to secure a satisfactory picture of the waste products; but we do not need them for the analysis. Indeed, many modern researches are based on analysis of urine representing periods much shorter than twenty-four hours." (Folin. O.—Mellon Lecture, University of Pittsburg, 1917).

This last aspect of the newer analytical procedure, the fact that its methods are largely microchemical, is particularly important in connection with blood analysis. For the older methods one to two hundred milliliters of blood were required for satisfactory results. Obviously, these methods were unsuitable for routine or repeated clinical studies. By the newer methods complete analysis of all the more important constituents of blood is possible with 5 milliliters of blood or even less if necessary. One illustration may be cited as an example of the importance of the data obtained by blood analysis in the diagnosis, prognosis and treatment of disease. Diabetes mellitus is characterized by glycosuria and hyperglycemia. In mild cases the hyperglycemia is not excessive, generally 0.2 to 0.3 per cent, but in severe cases figures much higher have been reported. Since this glycosuria is dependent upon hyperglycemia, it is apparent that the hyperglycemia is the more fundamental. In the later stages of the disease the sugar threshhold is frequently raised and the glycosuria consequently serves as a poor guide to the glycemia. It was ultimately recognized that hyperglycemia might still be present in a patient whose urine was sugar free. In such cases, blood sugar analysis is of the utmost importance. The recent discovery of insulin has markedly influenced the treatment of diabetes and the treatment is largely dependent on blood analysis for its efficiency. Had this discovery been made fiifteen years earlier, its clinical application would have been much more difficult, for the reason that at that time no reliable clinical method of blood sugar estimation was available. Blood sugar has served as the basis for the standardization of the insulin unit, and likewise as a guide to its therapeutic administration. The unit of insulin originally adopted was based on the amount required to lower the normal blood sugar of a one kilogram rabbit to 0.045 per cent, at which point convulsions generally occur. The injection of a unit of insulin into a diabetic will permit the utilization of from 1 to 4 grams additional carbohydrate depending upon the severity of the diabetes and the number of units given. The height of the blood sugar constitutes the most reliable guide to the administration of insulin.

In this connection a word of caution as to the utilization of these micro methods and interpretation of the results. A large proportion of those who profit most by their use are busy practitioners who have considered their own time too valuable to permit them to acquire personal proficiency in these methods. Hence, they hire technicians to do the work without themselves being qualified to judge of the quality of the work.

"There is a legitimate and important use for technical assistants in the innumerable little laboratories springing up in connection with private and with hospital practice of medicine, but it seems to me extremely important that this use should conform to some reasonably honest standard of responsibility. The physician should know at least as well as his technician each and every kind of determination that the technician makes for him. Every method goes wrong now and then, and the physician who is as helpless as the technician when something does seem to be wrong has but meager qualifications for the work he is trying to do." (Folin).

One of the most important functions of our laboratory training in chemistry in the medical school is, in my opinion, not to make trained chemists or technicians of our medical students, but to seek to instill in them some critical judgment so that they are capable of discrimination between good and poor laboratory work. The fundamentals of good analytical technic, neatness, accuracy and good judgment, can be acquired by every medical student. Then and only then can he appreciate and demand intelligently a high type of technical assistance in his chemical diagnotic work. Then we will be spared the only too common spectacle of the clinician who confidently demands a complete quantitative blood analysis in the same time required for a quantitative test for sugar or albumin in urine.

The problems of nutrition have quite properly constituted a subject of pertinent interest which has engaged the attention of man

from early times. The study of metabolism of the balance between intake of food and output of excretory products has been greatly stimulated in recent years by the introduction of relatively simple apparatus for the clinical determination of basal metabolism, but the interest of man was early directed toward this interchange of products. Sanctorius in his "De medicina statica aphorismi" published in Venice in 1614 tells of many experiments upon himself. In an old cut he is represented as sitting in a chair suspended from a large steelyard. He was accustomed to determine his weight previous to each meal and then weighed the steelyard so as to counterbalance the additional food he proposed to eat. When the chair dipped, this signified the end of his repast. Some such automatic device should make a fortune for its ingenious inventor in these days of dieting, calories, and general overplus of weight among our most prominent citizens. The studies of Sanctorius are part of the earliest records of attempts to measure accurately food consumption.

The modern era may be said to have been opened in 1780 by Lavosier's demonstration of the identity of respiration with combustion. Since that time the chemist has gone step by step, with the physiologist in elucidating the normal operations of the first and most efficient internal combustion engine, the human body. Thermo-chemistry is the foundation of nutrition and dietetics.

One of the most important advances in the field of nutrition was made in the middle of the 19th cetnury when Voit announced and proved experimentally the principle now known as the nitrogen balance, the fact that in the adult organism protein is not stored over any considerable period of time and that the nitrogen of the protein element in the food is eliminated promptly and efficiently by the kidneys as urea. Normally the nitrogen of the food equals the nitrogen of the excreta, mainly urinary and fecal nitrogen. If protein is not stored beyond the daily requirements of the individual, what is the consequence, if any, of excessive ingestion of protein? The superior flavor of most protein foods, the traditions of good red meat, handed down from our Anglo-Saxon ancestors, have combined to make protein foods the central figure in man's dietary around which the other foods are grouped. "But while protein foods occupy this commanding position, it is not necessary or desirable that they should exceed the other food stuffs in amount or indeed approach them in quantity. We must ever be mindful of the fact so many times expressed, that protein does not undergo complete oxidation in the body to simple gaseous products like the non-nitrogenous foods, but that there is left behind a residue of non-combustible matter, solid oxidation products, which are not so easily disposed of." (Chittenden). The condition and its possible dangers are thus picturesquely expressed by Curtis. "The combustion of proteid within the organism yields a solid ash which must be raked down by the liver and thrown out by the kidneys. Now when this task gets to be over-laborious, the laborers are likely to go on a strike. The grate, then is not properly raked; clinkers form and slowly the smothered fire dulls and dies." Even though economic conditions did not counsel restriction of the protein in the diet, physiological consideration would tend to do so.

With the advent of the white rat, an animal unusually well adapted to nutrition studies because of its small size, resistance to infection, and disposition to eat almost any food regardless of palatibility, the interest in the problems of nutrition has shifted to the study of the newly discovered vitamins and their role in health and disease and the older cautions of Chittenden and others as to the evil effects of over-indulgence in protein food have been forgotten. The doctrine that an excess of a valuable food, like protein, is not injurious, gained credence. Although with other substances important in nutrition, as for example, sodium chloride, calcium salts, etc., we have clearly recognized the deleterious effects of hyperphysiological amounts, we have tended to believe that any amount of the organic food stuffs, protein, fat, carbohydrate, could do no serious injury to the organism. The warnings of the low-protein school have passed unnoted. Within the last few years, however, the dangers of over-indulgence in carbohydrate in relation to disturbances in sugar metabolism have been realized and our ideas as to the protein element of the diet seem likely to a similar revision. Whether or not nephritis, one of the most common diseases, is caused or influenced by high protein diets is at present a matter of controversy. The experiments of Newburg and others have shown that in animals, kidney damage may result from excessive amounts of protein in the diet and further, that apparently this damage may be ascribed to certain specific components of the protein molecule, certain individual amino acids. These amino acids have been shown by the recent studies of Van Slyke to be the form in which the protein is absorbed and circulates in the blood stream. The emphasis has tended to shift from the idea of protein to the role of individual amino acids. If these studies on animals are significant for human nephritis, the conclusion must be drawn that one factor,

at least, in nephritis is a defect in the intermediary metabolism of amino acids connected possibly with the metabolic function of the liver or kidney, or, more probably, a disturbance of equilibrium in the intermediary metabolism of protein and its decomposition products. In either event, the problem of nephritis becomes one essentially chemical, an aspect of imperfect nutrition.

Brief mention may be made of a few other typical problems whose aspect has been altered by recent discoveries of students of nutrition. Since the days of Garrod, uric acid has been charged with the responsibility for gout. The studies of the blood indicate, however, that high uric acid alone does not occasion gouty symptoms since in nephritis the uric acid of the blood may increase much above normal, and to an amount several times greater than that found in gouty individuals. The recent work of Folin has demolished the whole structure of the theories of uric acid metabolism and has demonstrated that in man, a marked destruction of uric acid may occur. The studies of gout in this work suggested many new aspects of the question. Part of the responsibility for gout may be borne by as simple a chemical abstraction as tautomerism. The more complete knowledge of the chemistry of the intermediary metabolism of carbohydrates has made possible dietetic relief in diabetes and as already pointed out, it is doubtful whether without this knowledge insulin, if discovered fifteen years earlier, could have been advantageously utilized in the treatment of diabetes. Adrenalin has been known for over twenty years, but in the absence of a knowledge of the exact role of the adrenals in metabolism, adrenaline has been of little or no use except as a drug. The more exact knowledge of the chemistry and function of the thyroid gland in metabolism would make possible a more extensive and rational use of thyroxin.

The discovery of the vitamins and their influence on nutrition has also been far reaching in its importance. As a result of the chemical studies of the British group at the Lister Institute, the way was opened for the mitigation of scurvy among the allies, particularly in the Balkan peninsula. Infantile scurvy in its latent or active form is controllable since students of nutrition have shown new and cheap sources of the vitamin C, the antiscorbutic vitamin. The advances along the lines of the cause and prevention of rickets are even more striking. With the discovery that synthetic rations could be prepared which would produce wide rachitic metaphysis in the shaft bones of rats, an experimental method of studying rickets was available. Investigators were not slow to take advantage of this. Cod-liver oil, long used in infant nutrition, was found to be most potent in its antirachitic properties, while many other fats lacked this factor completely. Exposure to sunlight or to ultra-violet light was shown to act also as a preventative on curative agent. Within the past month, it has been announced that irradiation of fats, otherwise inactive in preventing rickets, caused them to become active and that rations which ordinarily produced wide rachitic metaphysis in the shaft bones of rats became antirachitic and promptly effected a rapid and complete healing of the lesion. In another series of experiements, irradiated rats placed in the same cage with non-irradiated rats were able to induce growth in the latter. The problems of rickets and heliotherapy seem likely to take on entirely new aspects as a result of this chemical work from the University of Wisconsin. That chemical changes must be produced in the tissues of rachitic rats as a result of the action of light has been unquestioned, but now that antirachitic properties can be conferred on foods by irradiation, in vitro, the determination of the chemical nature of these changes becomes one of the most important possibilities in the studies of rickets.

One further illustration from a problem in which the speaker is particularly interested may be cited. For years, the cause of cystinuria, an "error of metabolism," has been unknown. Why should certain individuals fail to perform completely the normal combustion of cystine, the main sulfur-containing amins acid in the protein molecule? The cystine, incombustible in part at least in these cystinurics, is treated as waste material and eliminated through the kidneys. In these organs or in the urinary bladder, due to its insolubility, it crystalizes out in many cases and calculi which requires surgical treatment for their removal may result. The newer studies of sulfur metabolism have assigned to cystine (and sulfur) an important role in oxidation and reduction and have shown that the conversion of cystine, the disulfide, to cysteine, the mercaptan, is the first stage in oxidation of the sulphur. Is the cause of cystinuria a congenital inability to perform the first stage of the conversion, the conversion of the difficultly soluble cystine to the unstable readily soluble cysteine? Is it possible to aid in the conversion by chemical means?

The illustrations brought together here today make no claim to originality. They have been cited merely to show some ways in which chemistry has been and can be applied to medicine. My remarks have been directed not to my colleagues, not primarily to the more advanced students, but to those of the first two years who are frequently impatient because

they are seeking for something "practical" in the work of the preclinical years. If these remarks have served to show that chemistry may be practical, they will have served their purpose. The illustrations are all drawn from material discussed and used later in the clinical side of medicine.

I would not plead for more chemistry. In the crowded medical curriculum, that can not reasonably be expected at the present time. I do, however, plead for a more thoughtful chemistry, for a realization by the student in the preclinical years, that chemistry has much of value in medicine and that the contributions of chemistry are increasing yearly. Disease is caused by a changed condition of the cells and these cells must be regarded as masses of colloidal material, the changes in which are in the last analysis to be regarded as occasioned by physical and chemical causes. To prevent these changes and to restore these cells to their normal condition is the problem of medicine, in the solution of which chemistry works hand in hand with the other preclinical sciences.

LEAD POISONING*

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Lead poisoning has been described as the industrial disease par excellence. Without question it is the most prevalent of all industrial poisonings, and this due to carelessness on the part of employer and employe. Furthermore the diagnosis is often missed because the physician does not take a careful occupational history nor examine the patient carefully for signs of lead intoxication.

The following report is based largely on a study of 86 patients admitted to the Receiving Hospital, Detroit, between May 1st, 1921, and April 1st, 1923.

ETIOLOGY

Exposure to lead is a danger in numerous industries. Among our patients there were four general painters, two spray painters (automobile), two brass moulders, and seventy-two automobile body sanders. This latter occupation consists of sandpapering down the preliminary coats of paint which have usually been sprayed or flowed on the body, preparatory to the finishing coats. This process is particularly in use on the cheaper paint jobs. Needless to say it is a highly dangerous occupation because of the enormous amounts of lead dust produced, and in Austria, Germany, Belgium, and Switzerland is forbidden by law. Other very dangerous occupations are the mining of lead, smelting, roasting, the manufacture of white lead, pottery making, glass blowing, printing, and the manufacture of electric storage batteries.

That dry sandpapering of paint ranks as one of the most dangerous of occupations involving the handling of lead is shown by the fact that of seventy-two sanders symptoms occurred in one month or less of work in twenty-six cases, and of these seven were afflicted in less than two weeks. One man showed symptoms after three days of exposure and this man already had a lead line on the gums.

Our patients ranged in age from 15 to 65, the majority being in the third and fourth decade of life. No especial susceptibility was noted among the younger patients. Only two women were cared for, both enamel sprayers, a highly dangerous occupation, and one which should be forbidden to women because of their increased susceptibility and the danger of selective action on the generative system.

In discussing the symptoms of plumbism we must differentiate between the acute and the chronic types. In the former large doses of lead are absorbed in a short period. Nearly all our patients fell in this group.

SYMPTOMS

Of the gastro-intestinal disorders, pain is the most common, being present in all but three of our cases. It is usually cramplike. though often taking the form of a dull and heavy ache. The patient usually describes it as being all over the abdomen or localized about the umbilicus. Associated with the pain there was frequently a slight generalized abdominal tenderness. Occasionally the pain and tenderness are confusing as is shown by the fact that five cases were referred to the hospital with the diagnosis of acute appendicitis, and two were labeled acute cholecystitis.

Constipation was the symptom next in frequency, occurring in 73 per cent of the series. As a rule it is severe, five or six days elapsing without a movement in spite of a liberal use of cathartics. Anorexia, nausea and vomiting and a sweetish metallic taste in the mouth frequently occur, and are associated with pallor, general weakness and a constant sense of fatigue.

The neurological symptoms were relatively infrequent in this series, actual wrist drop occurring in only five cases, while a weakness of the forearm (one or both) was noted in nine cases. No other involvement of the peripheral nervous system was noted. Apparently in most of our cases, the amount

*Read before Section on General Medicine, M. S. M. S., Mt. Clemens, September, 1924.

of lead absorbed was so overwhelming that severe gastro-intestinal symptoms occurred before there was evidence of involvement of the peripheral nervous system.

When the ingestion of lead is more slow and long continued, wrist drop, or other palsies, muscular weakness, and tremors usually occur, associated with anemia, hypertension, sclerotic vascular changes and cardio-renal disturbances.

Involvement of the central nervous system,—lead encephalopathy,—fortunately a rather rare condition, was seen in four cases. Each of these was an automobile body sander. In two cases the history was unobtainable as to exposure,—one case had worked for two and one-half years, and another for only three weeks. The diagnosis in all cases was made by the occupational history, lead line on the gums, wrist drop, blood picture, and absence of laboratory evidence of syphilis, meningitis or renal disturbances.

The following case is typical:

Case No. 16692, Negro, Age 40 years, Auto body sander three months.

Admitted to hospital October 13th, 1922. Symptoms began the night before entrance with headache, dizziness, and blindness. The day of entrance had several generalized convulsions lasting fifteen minutes, at intervals of about four hours. He was brought to the hospital in the evening in a stuporous condition. Previous to his attack he had vague gastric distress at times and for one week had constant nausea and vomiting.

On examination the patient was stuporous. There was a well defined lead line, and blood pressure of 175 systolic, 125 diastolic. Marked weakness of extensor muscles of wrist was present. Blood examination revealed Bb. 62 per cent, R. B. C. 3,650,000, and the smear showed large numbers of red cells with basophilic stippling. Blood Wassermann and blood chemistry were negative, as were the spinal fluid findings.

Of the physical signs elicited in plumbism the most common is the lead line on the gums. It appears early and occurred in 85 per cent of the cases. It is found most regularly on the anterior gum margins, at the bases of the central incisors, both upper and lower, but is occasionally found posterior to the incisors and sometimes on the buccal mucous membrane. It is most marked in cases with bad teeth or gingivitis but also is present in perfectly healthy mouths.

Hypertension is frequent in acute cases, but as a rule disappears after the acute symptoms have subsided. Other cardiovascular changes are notable by their absence. On the chronic type the blood pressure is often permanently elevated, and is associated with arterio sclerosis, hypertrophy of the heart and renal changes.

BLOOD PICTURE

The characteristic blood picture is that of a secondary anemia of moderate severity with an associated basophilic stippling of the red cells. This occurs even in early cases, appearing in one patient after only a week of exposure in the sanding room, and is present in practically all the cases of chronic poisoning. The anemia may at times become severe. We have observed patients with a hemoglobin as low as 45 per cent.

TEMPERATURE AND PULSE

It is an interesting fact that in eighty-two per cent of our cases a slight rise of temperature to ninety-nine degrees or above was noted. A few cases were admitted with temperature and with symptoms of upper respiratory infection, which had started simultaneously with the onset of plumbism. Apparently in those cases the infection was the immediate cause of bringing out the symptoms of lead poisoning which had been hitherto latent. This occurrence has frequently been noted by British industrial physicians.

DISCUSSION

"All lead poisoning arises from the inhalation of dust and fume." This statement by Legge should of course, be limited to industrial plumbism, but is well borne out by the statistics presented in this series. Eighty-eight per cent of our cases were sanders working in an atmosphere laden with lead dust, and the remaining patients all worked at trades in which the absorption of lead by inhalation of dust or fume is an ever present hazard. Painting, especially spray painting, as used in the automobile industry is a notoriously dangerous occupation, and enamel, as used on sanitary ware may contain from 1 to 20 per cent of lead; also the process of application produces great clouds of lead dust and fume. Both of our patients who had worked as enamel-sprayers were young girls. In England they are prevented by law from working at such trades, as women, and especially young girls, are known to be especially susceptible to lead. It is interesting to note at this point that the two brass moulders showed no symptoms of "brass founders ague," but gave a definite history of lead symptoms with the physical signs of plumbism. The better grades of brass may contain no lead, but the cheaper varieties may contain about ten per cent.

With Doctors F. M. Meader and A. S. Dean of the Detroit Department of Health the author visited the sanding department of one of the large automobile body factor-

ies. The air was filled with dust. Bodies with the prime coats of paint were automatically conveyed through the room while the "Sanders" rubbed them down with sand paper. Many of the employes wore masks of several thicknesses of cheese cloth, though this was not insisted upon, nor were these masks changed every day, in all cases. The dust was removed from the air by an overhead ventilating system, being sucked directly upward past the workers mouths and noses. One of the masks worn for one day was procured and was found to contain eighty-one milligrams of the element lead. Goadby states that the absorption of two milligrams of lead a day is an unsafe dose. Thus the possibility of the ingestion of tremendous amount of lead daily explains the early appearance of symptoms in sanders. One of our patients came to the hospital after only three days of work, and many of our patients stated that a large number of laborers quit after two or three days of work complaining of colic. As a rule symptoms occurred in the other trades represented, only after months of exposure and did not seem to be as severe. Legge believes that some individuals can build up an immunity to lead after an early mild intoxication, and then hold their intake and excretion in balance for a long period of time. This is apparently possible in the less dangerous trades, but in the sanding room the dose is too overwhelming, and acute symptoms appear early.

A blue line on the gum margins, abdominal pain, and constipation form a triad of symptoms diagnostic of acute plumbism. They occurred in nearly every case in this series, and were closely followed in frequency by other abdominal symptoms, nausea, vomiting and loss of appetite. It is particularly to be noted that the lead line may appear after only a few days of exposure. It persists long after the other signs of poisoning have disappeared, and by itself cannot be considered diagnostic of lead intoxication. On the other hand it should be considered an evidence of exposure to lead, and a warning against further exposure. Furthermore its appearance in one worker indicates a dangerous hygienic condition for all individuals at the same work. Neurological symptoms may be absent in the acute cases, but are nearly always present in the chronic type and are associated with pallor, loss of sight, asthenia, gastro-intestinal and cardio vascular symptoms. In doubtful cases the presence of basophilic stippling in the stained smear will clinch the diagnosis.

RESULTS AND TREATMENT

In this series of eighty-six cases there were three deaths, two due to lead encephalopathy, and the third to dementia paralytica. All other cases were discharged improved or well. The routine treatment instituted in all cases was the administration of potassium iodide and liberal catharsis with Magnesium sulphate. In some acute cases morphine was necessary to control the colic. Benzyl benzoate was given a trial in several cases without effect on the gastro-intestinal pain as far as we could see. In a few cases atropin gave good results in the control of colic. All cases were instructed to seek other employment, and were warned of the danger of handling lead. Recent investigations of Aub and his associates indicate that lead, after ingestion, is carried in the blood stream as a phosphate and is stored in the calcareous portion of the bones. While stored there no symptoms of intoxication occur, but poisoning occurs when the lead is being transported after absorption or following release from the bones. They found that elimination of lead is increased by a low calcium diet and acid medication. They recommend Ammonium Chloride in doses of 8 to 12 grams, daily, this drug changing to urea and liberating acid within the body. Alkali therapy will also hasten the elimination of lead, though to a lesser extent than treatment with acid.

It is interesting to note that since April 1, 1923, only twelve cases of plumbism have been admitted to the hospital. On investigation we found that the factory from which our patients had come had eliminated the dry sandpapering process entirely, and instituted "wet sanding" in its place. With this method the painted body is kept constantly moist with water while the sanding is going on. As a result the air is entirely free from the dust with a resulting large reduction in plumbism. Because of the marked danger in the "dry sanding" process we feel that it should be prohibited by law. Furthermore, it would seem advisable to make plumbism and industrial diseases in general reportable, and to institute state or federal control of factories as has been done in England, where, by careful control and frequent examinations, lead poisoning and other industrial diseases have been reduced tremendously.

SUMMARY

1. Eighty six cases of lead poisoning were cared for in the Detroit Receiving Hospital in two years.

2. Of these, seventy-two were automobile body sanders.

3. This occupation is, at best, exceedingly dangerous, and the lack of precaution observed, made it a positive menace to the health of those exposed.

4. Due to the exposure to enormous quantities of lead dust sanders may develop symptoms after only a few days work, and encephalitis may develop after a relatively short exposure.

5. A lead line on the gums, abdominal pain, and constipation from a triad of symptoms diagnostic of acute lead poisoning. Basophilic stippling of the red blood cells is confirmatory of the clinical findings.

6. It is recommended that the method of "dry sanding" of painted surfaces be prohibited by law.

7. Lead poisoning and industrial diseases in general should be reportable, and under the control of state or federal authorities.

(From Medical Clinic, Detroit Receiving Hospital.)

DIABETES AND ITS MODERN TREATMENT*

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Diabetes is an old, old disease. The word comes from a Greek root meaning a flowing or a fountain, and I think the terminology particularly apt, when one considers the outstanding symptoms of this disease,—excessive urination incited by sugar, which comes from the starch and the actual sugars of foods, from fats, meats, and to a limited extent, from wasting body tissue.

In 1880, the death rate from diabetes in this country was 2.8 per 100,000, and by 1910 it had risen to 14.9 per 100,000. It reached the high water mark of 17.5 in 1915, fell again until 1919, since when it has gradually been on the ascent. Conservative estimates place the number of diabetics in the United States at nearly two millions!

Sugar is a necessity to the body, and the process by which foodstuffs is turned into sugar is a normal one; there is always sugar in the blood, about 1 part in 1000, to which normal kidneys are impermeable. It is as sugar that a large portion of the food, in fact, all of the carbohydrate, more than half of the protein, and about one-tenth of the fat, enters the tissue cells for consumption, and this is disposed of by storing and burning. It is burned so as to provide energy and heat, and stored in the form of glycogen and fat in liver and muscle.

This process requires the help of a ferment, and it is in a fermenting capacity that the pancreas or abdominal sweetbread functions. One part of the pancreas assists digestion and the other part prepares an internal secretion for delivery into the blood. Embedded in the pancreas are groups of cells which are responsible for this sugar ferment, and these cells are no other than the famed islands of Langerhans, so named from the German pathologist, Robert Langerhans, who discovered them in 1869. When they are injured sufficiently so as to impair their normal functioning, you have in fact diabetes.

A condition arises wherein the burning and storing process is disturbed, the body cannot utilize the sugar which it has made, and the surplus accumulates in the blood in excessive amounts, part of which spills over into the urine through the kidneys. This failure to burn sugar is co-incident with partial failure to burn fat, and the incomplete combustion of fat produces acetone bodies in the blood stream, which may cause acidosis and eventually coma.

Injury can be caused by inflammation due to infection, by scarlet fever, arteriosclerosis, by stones in the pancreatic duct, by heredity, for diabetes often runs in families, and even by over-eating. When the output of sugar ferment is reduced to the point when it is below the amount required to take care of the food sugar, the extra unused sugar passes with the blood through an over-worked pancreas. Any organ pushed to over-exertion becomes exhausted; so is it with the pancreas, the beta cells of the islands becoming atrophied.

The outstanding symptoms are excessive urination, acute hunger and thirst, inanition, and the presence of glycosuria. The purpose in treatment is therefore to provide the diseased or injured islands opportunity for rest; hence the necessity for restricting diet in diabetes, the evading of injudicious eating, and the curtailment of high sugar-producing foodstuffs.

Carbohydrate, although it forms more than 70 per cent of the ordinary diet, yet constitutes but about 1 per rent of body weight, denoting that it is the most easily metabolized of foodstuffs. There is a limit, of course, to the amount of sugar one can assimilate, the normal person being able to take ¼ per cent of his body weight—150 to 200 grams, (5 to 7 oz.), at one time without evidencing glycosuria. The body can store an excess of sugar without glycosurial effects, and it often does this in the stable form of fat, but this is merely a pathological substitute for a physiological method, and besides adding unnecessary weight to the body, has a tendency to reduce activity and overtax energy. Von Noorden classes certain cases of obesity as merely latent glycosuria.

*Read before the Wayne County Medical Society.

It is only reasonable, however, that there must be a limit to this fat depositing process, and when this limit is reached, the surplus sugar must pass into the urine. Naunyn has declared that anyone passing sugar even after a free ingestion of starch is a potential diabetic. Thus the inference can properly be drawn that the line of demarkation between obesity and diabetes is a particularly thin one and not subject to much elasticity.

After a meal containing sugar the blood sugar of a normal person rises, and may reach as high as 0.15 or 0.17 per cent, falling again after an hour or more. This is what is known as the glucose threshold. If this percentage is exceeded some sugar will appear in the urine, but when sugar metabolism has been impaired for a long period, the blood sugar may rise without evidence of sugar in the urine. Some diabetics have failed to show glycosuria with blood sugar even as high as 0.25 per cent, at which figure the normal person would of a surety excrete sugar.

We are here confronted with a true case of hyper-glycemia, non-pancreatic in origin, but which, if continued, will ultimately affect the structure of the pancreas, causing vacuolation and exhaustion of the cell islets in their attempts to deal with the excess sugar in the blood.

Since the sugar in the blood rises after a meal, some attempts must therefore be made in the treatment of diabetes to fix the range of sugar between arbitrary limits. The lower limit is easily defined as that which does not cause symptoms of hypoglycemia, i. e. deficiency of sugar in the blood. The symptoms of this condition are, a vague fear of something unknown, tremulousness and shakiness, profuse sweating, muscular weakness combined with palpitation of the heart. The ultimate symptoms are, dizziness, incoherent speech, convulsions, and finally coma. The administration of any carbohydrate out of which glucose can easily and quickly be formed, is the antidote, and in severe reactions epinephrin may be given, followed by sugar. Diabetic treatment should therefore be such that will prevent the blood sugar falling sufficiently to lead to symptoms.

The upper limit is commonly fixed at 0.15 per cent, and this has been found suitable for all purposes in the course of average treatment. The ideal method of course, would be to take blood samples at various times of the day over a period of two or three weeks, but in the majority of cases this is not practicable. I find that the 0.15 per cent limit meets requirements, unless during the course of treatment of a peculiar case, events decide otherwise.

Examination of the urine does not offer a satisfactory basis for the estimation of sugar in the blood, for the sugar excreting ability of the kidneys must be considered; glycosuria may occur without hyperglycemia, and hyperglycemia is not necessarily followed by glycosuria. Hyperglycemia of whatever degree is potential diabetes.

Before proceeding further, it is desirable to consider some forms of glycosuria which appear to be dependent upon defects other than in the pancreas. They may be interpreted in various ways, as of renal, neurogenic, alimentary or hepatic origin.

Renal glycosuria, which is not dependent on a disturbance of metabolism, has a similarity to the effects of phloridzin poisoning, in that sugar is excreted regularly or intermittently, abnormally, even when the blood sugar is normal, nor is this sugar secretion changed by dieting. Furthermore, untoward effects are possible if attempts be made to render the urine sugar free. It can even be accounted for by congenital increased permeability of the kidneys for sugar. No complications of renal disease are commonly found with it; it is probably a benign disease, and calls for no treatment at all. Prognosis as to longevity is very favorable, though watch must be kept because of the possibility of the change of a supposed renal glycosuria into true diabetes.

Glycosuria can also depend on disturbances of endocrine glands, and the advances made in our knowledge of internal secretions tell us that certain inter-relations have to be considered. Excitable, nervous people often exhibit glycosuria after mental or physical strain, and in true diabetes the intensity of the glycosuria is very dependant on the condition of the entire nervous system.

The vegetative nervous system consists of two parts which are naturally antagonistic to each other—the sympathetic which converts energy into motion and the parasympathetic or extended vagus, which stores up the energy, especially the energy derived from the assimilation of food. These co-operate with the endocrine glands, the sympathetic with the adrenals, thyroid and pituitary; the other with the pancreas and possibly the parathyroids. The first group mobilizes sugar into the blood-stream where it is normally utilized for muscular energy and sometimes the production of fever. If carbohydrate metabolism is functioning properly the sugar is utilized at once, but if not, hyperglycemia though not necessarily glycosuria results.

Witness the occurrence of hyperglycemia in pneumonia and rheumatic fever, and I think you will find the explanation of focal sepsis in

aggravating diabetes. Sepsis need not necessarily cause hyperglycemia, but the occurrence of hyperglycemia in sepsis, indicates an imperfection in the sugar storing mechanism, and if this impression is already present, sepsis will aggravate it.

Hyperthyroidism with hyperglycemia will develop into true diabetes if the hyperglycemia is prolonged enough to damage the cell islets, but in such cases it is probably the thyroid rather than the glycosuria which calls for treatment, the essentials of which are rest, physical and emotional, removal of septic foci, nor does the dieting restrictions need to be very drastic.

On the other hand, in atrophy or defective formation of the thyroid gland, the pancreatic powers are increased, and patients suffering from this disease—for instance myxedema,—can take large quantities of glucose without evidencing glycosuria.

Disturbances in functions of the ductless glands and particularly of the thyroid, leading to glycosuria, are particularly common in individuals suffering from catarrh of the upper intestine with evidences of toxemia. In the earlier stages the glandular trouble appears to predominate, but as this conditions progresses an alimentary (hepatic) glycosuria is apt to develop, the pancreas becomes affected, and ultimately true diabetes results. Here again the primary source of trouble, the intestinal catarrh, needs to be attended to first.

The antagonism between the pancreas and the adrenal medulla is well known, and the injection of adrenalin to check secretion following removal of adrenals can cause glycosuria, large doses having a tendency to turn the glycogen of the liver into sugar and thus interfere with the pancreatic storage mechanism. This is more pronounced in the case of those with a highly strung sympathetic system, whereas those with a highly strung vagus system are more impervious to adrenalin. Generally speaking the vagus system predominates in hysterical people, and the sympathetic in neurastheniacs. The quick antidote is to deprive the patient of sugar, so that the mechanism for storage of sugar as glycogen is not suddenly overtaxed immediately after food.

Pituitary glycosuria is caused by the hyperfunction of the pars intermedia of the pituitary forming an internal secretion which depresses the utilization of sugar by the organism. The glycosuria may be intermittent seeing that the pituitary is rythmic in its functions, and in this connection it may be noted that the glycosuria of pregnancy, which is due to its stimulating effect on the pituitary, will directly affect the internal secretion of the pancreas, diverting the sugar from storage in the material tissues to the use of the foetus.

There is to be found a peculiar facial appearance in the majority of adults suffering from pituitary glycosuria, somewhat resembling acromegaly, though the typical bony changes to be met with in that disease are not present. Others exhibit signs of diminished sexual development, depending on whether the anterior lobe of the pituitary is overacting or underactive. All this prompts the suggestion that in some cases at least, it is a congenital condition.

Glycosuria associated with pancreatic disease is easily recognizable; there is fatty diarrhoea, sometimes creatorrhoea, and the output of urinary diastase is increased. This may be present in the early stages, or even before glycosuria occurs, subsequently subsiding.

We have now to consider the final stages, where through a combination of defects the utilization of carbohydrates entirely or almost fails, and the metabolism of fat and protein is consequently more or less imperfect. Such a condition may develop slowly or rapidly, but once fully established, the clinical symptoms are always much about the same, and the blood changes of a similar type. The dominating feature of this is defficiency of the internal secretion of the pancreas,—the so-called true diabetes, absolute pancreatic diabetes if you care for a newer definition, but most commonly known as diabetes mellitus.

To date it cannot be said that a cure for diabetes has been found, and this notwithstanding the epochal discovery of yesterday. Certain palliatives and dietetic treatments have been devised and more or less perfected and clinicians, chemists, physiologists, and metabolists have labored to arrest or at least ameliorate diabetic conditions. Up to the end of 1920 a wonderful compendium of knowledge had been gathered, a sure foundation laid, a stage in fact set, for the supreme effect and discovery in the field of diabetic research.

I vision the old giants in the work, and our men of contemporary days, and I think of them as men matured, and mellowed with the graying thatch of hard-worked-for knowledge and time-bought experience. Brunner, Claude, Bernard, Langerhans, von Mehring, and Allen, Joslin, Marsh, Newburgh, hardy pioneers were they in an almost widerness, harbingers if you will, of greater things to come.

We are oft reminded these days that we are in an age when youth must be served, glorious, imaginative youth, and I am one who does not care to dispute the assertion. Has not youth given us this supreme discovery?

Simpson, Jenner, Koch, Pasteur, mighty

names all, made their discoveries in the accepted fashion, and all had a solid background of seasoned experience, and only their niche in in fame after prolonged and exacting labors. Banting, the young Canadian surgeon, had an idea, and Best, the second year medical student possessed some knowledge in physical research. Thus equipped, and who will say they were adequately so, they collaborated, and after short lived, but hectic and strenuous days, and nights too, in plain every day language, they "put the idea over." They gave us Insulin, to quote Allen, "the first replacement of negative by positive therapy in diabetes," and probably the most important therapeutic discovery of a century.

Insulin is the hormone of the pancreas which regulates carbohydrate metabolism, and although it does not cure diabetes, does provide an artificial administration of the internal secretion of the pancreas in sufficient amounts to compensate for the deficiency in production of a patient's own pancreas, thus promoting the utilization of a definite amount of sugar. Administration is by subcutaneous and occasionally by intravenous injection, while it is not effective when given orally or by rectum.

The drug has attracted widespread publicity in both the lay and medical press, and rightly so, but with this result, that diabetics of all sorts and in all conditions have eagerly seized on it as a panacea for their ailments, and in increasing numbers are clamoring to be shown what it can do for them. They must be told that Insulin treatment is conditional, that there are 'ifs' and 'buts' about it, and that many factors have to be considered before its aid can be advocated in particular cases.

It certainly cannot be said that every diabetic patient requires it; expense is a deterrent in many cases, while in others, chiefly of a mild nature, reasonably restricted diets produce the desired results alone. There has crept into diabetic literature a phase or circumstance which can properly be described under the nomenclature of "Investing in Insulin," and investing in Insulin requires cogitating and weighing in the balance just as much as does investing in stocks or bonds. It's returns that count.

The average diabetic patient must consider whether he will gain sufficiently in strength and efficiency to compensate for the expense entailed in buying the drug for an indefinite period, for the time spent in learning how to use it, and for all the annoyances and restrictions that its use involves. To the physician no less than to the patient, are these questions important. To some patients Insulin is a necessity, while to others it is a luxury and a needless expense. It is a luxury to most patients with diabetes in a mild form, while as a general rule it should be given unhesitatingly to diabetic children, in all cases of coma or severe acidosis, in cases where dieting fails to relieve, and where severity necessitates surgical operation. It is also more necessary to patients under 40 than to those above that age. Happy is the physician who has the knowledge and intuition to help his patients solve the eternal "to use or not to use" question satisfactorily.

TREATMENT

A most important phase of Insulin treatment is the accompanying dieting restrictions, for restrictions there must be if this pancreatic extract is to be used wisely and successfully. In fact, nothing is to be gained by its use in diabetes, unless the patient's diet is scientifically adjusted and the proper amount of food, both carbohydrate and other materials given in conjunction with it, its chief purpose being to enable the patient to utilize a greater amount of carbohydrate and gain in strength.

Insulin, instead of simplifying diabetic dieting, has made it more complex, and the physician must be more eager than ever to familiarize himself with the best types of diabetic procedure which are at his disposal. The advent of Insulin has uncovered more diabetics than the profession had cognizance of, which naturally has thrown upon hospitals and general practitioners the burden of treating many more cases than formerly.

There are three distinct systems or methods of diabetic dieting in use in the best informed medical circles today,—the "Allen" method or a modification of it, the "Joslin" method, and the "high fat" method. Each has its ardent admirers and exponents, and no one can truthfully say which will prove superior in the end. All three have invariably produced beneficial results.

The "Allen" and "Joslin" methods are similar, in that both are undernutritional; Joslin avoids fasting as much as possible, while Allen stringently demands a constantly normal blood sugar and low weight and strength, believing that the diabetic patient is better off when his weakened functions are spared as much as possible. Both allow only a minimum of fat because of its association with the liberation of acid bodies.

The "high fat" method, originating with Newburgh and Marsh of Ann Arbor, was carried out to its furthest point by Woodyatt. It allows a high proportion of fat and a low proportion of carbohydrate and protein. They insist that patients who are undernourished, will metabolize their own body tissues, and

that from a purely metabolic standpoint little or no difference is encountered between body and food fat.

Wilder has also introduced a very acceptable method, in its essence a compromise between the "Allen" rigid diet and the "high fat" method.

No one who needs insulin and uses it, can thereupon start out to eat what he desires. Larger diets can be given with Insulin, i. e. regulated diets, but there must be a very careful balancing of the Insulin dosage and the proper food values. So as to avoid on the one hand an excess of sugar in the blood, and on the other hand, complications and reactions which would result from an overdose of Insulin, or from its use with insufficient food. In addition, the patient must be trained to understand the fundamentals of dietetics, to follow the prescribed diets at home with food scales and tables of food values, to test his urine daily, and also learn to administer the drug himself and recognize and be able to handle emergencies when they arise. Acidosis must be especially guarded against, for if allowed to continue interruptedly diabetic coma may result. All this means systematic study and takes time and great patience, but the surprisingly good results will assuredly make up for any possible annoyance or inconvenience.

Treatment must be strictly individualized, that is to say, the daily dose of Insulin and the amount of food for which this dose will provide adequate ferment must be determined separately for each patient. This entails careful planning by the physician and intelligent co-operation and strict adherence to instructions on the part of the patient, so that the whole aim and object of successful Insulin treatment may be attained—to render the urine sugar free, to maintain the amount of sugar in the blood within normal limits, to improve nutrition and to prevent backward progress.

Before starting treatment it is important to discover and treat any other sources of infection, such as boils, pyorrhoea, etc., if such exist. Tuberculosis of the lungs should also be sought for, as this is a common complication, especially in diabetes, which has been long standing. Infection of whatever kind adds greatly to the difficulty of management, and obscures a patient's tolerance to the drug.

Most diabetics can be satisfactorily managed in the home, and only very severe cases and cases with complications and in coma need hospitalization, emergency cases as it were. The great majority of diabetics are of moderate means and cannot afford extended hospital treatment or even nursing service, so that Insulin treatment must be so simplified that its technique can be made applicable to the facilities afforded by the average home or ambulatory clinic. On the general practitioner devolves the onerous duty of meeting these conditions.

Assuming that there are no complications we may now proceed to outline the course of modern treatment in diabetes, reinforced by the drug Insulin.

A classification of cases based upon the assimilation of carbohydrate is permissible and will be found helpful in treatment, but such classification must never be arbitrary, for cases have been known to graduate from one class into another and vice versa. It is customary to divide diabetics intot three types,—mild, moderately severe, and severe. Joslin considers that severe cases have a tolerance of up to 10 grams of carbohydrate, moderately severe from 10 to 50 grams, and classifies the remaining cases as mild. He refuses to determine severity in terms of glucose tolerance. If no insulin is needed, the case may be regarded as mild, case requirements under 30 units moderate, and when 30 units or over are required to prevent glycosuria, the case may be definitely declared severe.

Formerly it was considered necessary to make many observations of the blood sugar, but now the urinary sugar alone is watched, along with the systematic effects of the drug.

It is a good plan to first endeavor to render the urine sugar free by dietetic measures alone. Rest in bed is the first requisite, with a one or two days fast, followed by a gradual increase in the 24 hour diet to something like the following characteristic Graham diet:

3 eggs.	1½	oz. butter.
2 oz. meat.	1	oz. cream.
2 oz. bacon.	12	oz. cooked green vegetables.
2 oz. ham.	4	oz. uncooked vegetables.

This has a total of 58 g. protein, 118 g. fat, 17 g. carbohydrate in the form of vegetables, all with a caloric value of 1358, and this amount of food is sufficient for an adult weighing 150 pounds, and represents about ½ g. of protein per pound and 21 calories per kilo. For a patient weighing more or less, the diet would have to be increased or decreased and the calories per pound kept about the same.

The caloric needs of the body vary greatly, for there are so many angles to consider, and no two authorities seem to agree on a definite standardization. The facts of age, sex, weight, nature of occupation, etc., all enter into the reckoning and help to retard what would make a very desirable agreement.

It is very necessary to have a standard diet, such as the ladder diet; it is simple and easy

for the patient to understand and carry out, and the necessary deductions or additions can be made with facility. In the case of children, adjustment is rather more difficult, a slightly larger proportion of protein is required, and the fact that growth and natural increase in weight are ever present, must not be lost sight of.

The Graham Test Diet (Fig. 1) is of the ladder variety, the computation of the quantity of carbohydrate, protein, fat, and caloric values in the different kinds of food, being taken from a standard table of food values. These values are known, or ought to be known, by heart, by every physician handling diabetic cases; at least he should have such a table handy for immediate reference.

TEST DIET—Fig. 1.

	Breakfast	Dinner	Supper	Daily total Oz.	Daily total Grams	Carbohydrate Grams.	Protein Grams.	Fat Grams.	Calories
Eggs	2		1	3	90	0	18	18	234
Meat	2 oz	2 oz		2	60	0	16	10	154
Bacon				2	60	0	5	30	310
Ham			2 oz	2	60	0	10	17	165
Butter	1/2 oz	1/2 oz	1/2 oz	1.5	45	0	0	37	337
Cooked Veg.	4 oz	4 oz	4 oz	12	360	12	6	0	72
Uncooked Veg	1 1/3 oz	1 1/3 oz	1 1/3 oz	4	120	4	2	0	24
Cream	1/3 oz	1/3 oz	1/3 oz	1	30	1	1	6	62
		Totals		27.5	825	17	58	118	1358

Should this diet be sufficient to render the urine sugar free, tolerance can now be determined. By increasing the diet a little at a time, raising the intake of carbohydrate, until a limit is reached beyond which an excretion of sugar will result, that limit will be the point of tolerance. When this is known a scheme of dieting can easily be planned and food mixtures prescribed which will provide enough protein for tissue building, enough calories from fat and carbohydrate to provide energy, and as little carbohydrate as is consistent with a properly balanced diet, not to cause acidosis

The absence of glycosuria gives evidence that all the carbohydrate is being utilized, and this being so, it may be altogether possible to treat the patient by diet alone, but it would be unwise to assume this in every case.

On the occurrence of sickness from sore throat, fever, or other complications, this diet would have to be amended, for under the new circumstances sugar tolerance may be temporarily lowered, some of the sugar in the diet will remain unburned, the fat ration will be poorly utilized, acidosis will develop, and Insulin will have to be resorted to.

If, however, the patient continues to pass sugar on this diet, 10 units of Insulin should be injected daily before breakfast, and the urine collected every three hours and tested. If after three days on this treatment, sugar continues to be passed, the dose of Insulin must be increased to 15 units daily, and if at the end of another period of three days, urinary sugar still continues, 20 units must be given, and this process repeated until the urine is sugar free throughout the 24 hours. At this juncture it may be noted that the action of Insulin is transitory, and the effect of the morning injection is usually spent up supper time, and the sugar from this meal may cause the blood sugar level to overreach the threshold, but the following night fast will be sufficient to again clear the urine.

It would be advantageous to know exactly how high the blood sugar is before Insulin is given, but if this is not possible it can practically be estimated by watching the effect of the Insulin. An adult who has only a normal blood sugar cannot take more than 10 to 12 units of Insulin on this diet without showing mild symptoms of over-dosage. If no symptoms of over-dosage appear after 20 units, it is altogether probable that the blood sugar is above 0.15 per cent, and the Insulin should be kept steady at 20 units until symptoms are produced and should then be decreased by 2 units at a time.

When the blood sugar is normal and only 10 or 15 units are required, the diet can be gradually increased, adding to the protein and fat ration in preference to the carbo-hydrate, so as to rest the Beta cells of the islands of Langerhans as much as possible. The caloric value may also be raised to 1800 or 2000 and the protein ration to .75 g. per pound body weight.

The above procedure is necessary for the patient who continues to pass sugar after severe dietetic restrictions. Most patients, it may be noted, cease to pass sugar on the suggested diet. When a patient continues to pass sugar after 20 units of insulin injected in the morning, it naturally follows that he needs more Insulin, but such a patient would be better treated in a hospital, in order to have the necessary

continuous nursing service, as the danger of over-dosage would be exaggerated, since the dose may have to be increased to as much as 25 units in the morning and 20 units at night.

Glycosuria and acidosis may be controlled in a few days, and an estimate of the patient's tolerance, his Insulin dosage and food requirement can usually be determined within 10 days or two weeks. All this having been done, the next step is to plan on a maintenance diet, a food mixture of from 2000 to 3000 calories, which with the help of Insulin will enable the patient to be up and about, to gain in strength and body weight, so that he can resume occupational duties with some degree of efficiency.

30 to 40 or even more units may be required daily, and in this connection it is well to know that I unit of Insulin will balance or 'work' practically 2 grams of sugar. In actual practice it will be found that 20 to 30 units are usually sufficient to permit the assimilation of a properly balanced food allowance of 2500 to 3000 calories.

Conditions may arise that necessitate the discontinuance of insulin for a time, and in this event the high caloric diet must be abandoned and a retreat made to the low caloric or original test diet, with rest in bed, until such time as the use of insulin can be resumed.

It is considered unwise to allow naturally stout patients to put on weight, or to permit too marked an increase in the emanciated; for the former a diet containing less fat is advised, but for the latter a diet sufficient to bring about some increase in weight is recommended, even though more insulin may be required to 'work' it, so that the general condition of the patient is improved along with his resistance to infection.

Single injection is to be preferred, but it has been found difficult for a patient to tolerate more than 30 units at a time and derive the maximum benefit from such a dose. Accordingly 25 units are best given before breakfast and the balance at mid-afternoon.

Before proceeding further I would like to mention that hypoglycemia is very liable to develop at some stage of the treatment, but that it is harmless if recognized early. Sugar by mouth, intravenously, or by rectum if the patient is unconscious, makes a very quick antidote.

An overdose of insulin will produce hypoglycemic reaction; "Insulin shock," as it may be called. Any dose of insulin, insufficiently buffered by sugar in the food, is an overdose, and if it be large, and nothing done to control the reaction, unconsciousness and possibly death may result.

Diabetic coma needless!! No less an authority than Dr. Elliott P. Joslin is responsible for this statement, and I will not question his surprise that such a condition should be allowed to develop. However, conditions must be treated when they exist, and it is a patent fact that diabetic coma is still with us, and it requires treatment,—yes, prompt and skillful treatment.

During processes of acute fevers or infections of whatever kind, a patient's tolerance may be lowered, fat combustion interfered with, whereupon acidosis will develop with ensuing coma. Sugar in the urine may exist even though the patient eats but little, and acidosis become severe. In some emergencies dieting must be restricted and should consist principally of liquids, while the amount of Insulin invariably requires to be increased, and should be given in multiple doses.

Although acidosis is more probable during fevers and in processes of complicating diseases, it can also be caused by indiscriminate eating, and by failure to carry out dieting restrictions, through extreme physical exertion, or by continuation of a high diet without the necessary insulin balance. Uncontrolled acidosis will result in coma, the onsettting symptoms of which are usually drowsiness, nausea, pain in the stomach, roaring ears, and the breath smelling strongly of the fruity, sweet odor of acetone, accompanied with labored breathing.

Granted that a case of diabetes is under strict care, the onset of coma may possibly be due to negligence, but my experience has been that the condition invariably develops and attains great headway before the physician is called in at all. His not then to reason why, but to exercise all the skill and knowledge he possesses to get it under control.

With an adequate knowledge of dietary management, and the proper conception of Insulin and its administration, the physician can save most cases of diabetic coma. Having so potent a means of controlling the primary acidosis factor, he can now devote more time to studying and combatting secondary contributing factors. The essence of treatment is not necessarily to desugarize, but to aid the patient to burn more sugar so that fat may be utilized and the acidosis relieved.

A dose of 30 units of insulin is given at once, along with 150 gm. of orange juice by mouth, and another 20 units with orange juice, if the patient shows no sign of returning consciousness in three hours. The urine should be tested every three hours, and if sugar is still present from three to six hours after the injection, another 20 units should be given. If no sugar appears in this specimen, insulin

should be withheld until it does appear, when only 10 units should be given. Water, coffee, bouillon, only can be given for the first two days, when a start on the gradual ascent of the ladder diet may be made. Should there be no sign of any other infection, and it is most important to know this, the caloric values can be rapidly increased and the insulin dosage regulated accordingly.

Diabetes mellitus has largely lost its aspect of hopelessness and formidability. The weak, complaining, melancholic, tearful patient, is departing from the scene, and in his place is appearing a new being, stronger, more energetic, and with something of efficiency about him, and with the light of hope and new ambition in his eyes. He has a new lease on life, which, however, requires certain very important clauses to be strictly observed in order to ensure its retention. Insulin is not a cure for the disease, it may be again emphasized, but if given wisely and in knowledge, and accompanied with a scientifically adjusted diet, it gives every promise of removing most, if not all, of the terrors, doubts and misgivings, that have previously been associated with this disease.

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A DIET FOR PEPTIC ULCER

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The recent paper by Coleman[1], describing a new diet for peptic ulcer is noteworthy, because it is the first time in this country that an attempt has been made to adapt such a diet to the laws of physiology. As Pavlov was the pioneer in gastric physiology, so were Russian clinicians among the first to utilize the new knowledge in the treatment of gastric disorders. It may not be amiss, therefore, at this time to acquaint the readers of the Journal with a diet utilized by Jarotzky[2] of Moscow, who may be regarded as a fair representative of the Russian school. The diet is so simple that it may be carried out in the home, under the direction of a general practitioner, and in our hands the results have been very encouraging.

The treatment of peptic ulcer was first introduced in 1825-1838 by Cruveilhier[3], who argued that the ulcer must be treated like any other bleeding wound and be protected from mechanic, chemic and termic injury. To meet these conditions he and later Leube and Ziemsen[4] representatives of the socalled "Schonungstherapie" fed the patient exclusively upon milk. The milk curds, however, increases peristalsis, and the great bulk required to supply the necessary calories, dilates the stomach and interferes with healing.

Later the use of nutrient drip enemata came into vogue[5,6]. Absorption by this channel, however, was so poor and the technic so time consuming as to make the method impractical.

In order to furnish the necessary calories DeBove[7], of France, introduced his "suralimentation" treatment, and gave his patients pulverized meat through a tube. Einhorn[8] later introduced duodenal feeding, but neither method prevented traumatization of the stomach and both required hospitalization of the patient.

The diets of Lenhartz[9], Sippy[10] and Smithies[11], which allow milk, egg, bread, meat and fruit ignore the fundamental work of Pavlov which showed that the secretions of the stomach are exicted differently by various foods, and the frequent feedings demanded by the Sippy and the Smithies methods keep the stomach in a continuous state of peristaltic unrest. Thus the modern Russian school demands that in the treatment of peptic ulcer, *first*—gastric secretion be kept in obeyance, and *second*—gastric motility be reduced to a minimum, while at the same time the nutrition of the patient be kept at a high level.

THE JAROTZKY DIET

To meet the above conditions, Jarotzky feeds his patients from 10 to 14 days, exclusively upon egg white and butter. This egg white is raw and is neither salted nor whipped. It is never given with the butter, because the secretions of the stomach are increased by the combination. Wirshubsky[12] has shown that the raw egg white needs only one fourth as much gastric juice for chymification, as the equivalent of chopped meat, and Marbaix[13] states that the raw egg white leaves the stomach quicker than the boiled.

Lobasov[14] found that the secretions of the stomach are not involved at all by raw egg white during the first hour, though coagulated white causes an immediate response. This is probably a phase attribute, because Krgyskowsky[15] has shown that all solids, irrespective of their chemism increase gastric secretion.

Raw egg white is further a powerful astringent and has the property, par excellence

of fixing free acid, a property that is not shared equally by the whipped white, possibly because the whipping induces a change of phase, akin to coagulation.

Butter is given to supply calories. Upon reaching the duodenum it depresses the acidity of the chyme and closes the pylorus, Lintvarev[18], (Pavlov) and while still in the stomach, it stimulates the opening of the pylorus and causes the regurgitation of duodenal contents, which aids the fixation of acid (Boldyreff)[17]. Besides fats have an inhibitory influence upon the secretory process (Khizhin).[18] Instead of butter, any true vegetable fat may be given. Neither egg white, nor fat stimulates the so-called appetite secretion, "Igniting juice" of Khizhin)[19] because of their low taste value.

To minimize gastric secretion, no salt or water is taken by mouth. Ice is absolutely contra-indicated, because it has been shown that, following a short period of inhibition, the production of hydrochloric acid is increased thereby. On the third or fourth day, a glass of Vichy water or a half percent solution of sodium bicarbonate (Squibb) may be taken, because alkalies in dilute solution have been shown to inhibit the secretion of the gastric juice, when they are given one or two hours before meals. (Pimenov).[20] To maintain the fluid equilibrium of the body, normal salt solution is given by enema. No drugs are advised.

The following then, is a short resume of the treatment:

First day.....9 A. M., two raw egg whites.
1 P. M., 40 grams butter.
Second day....9 A. M., three egg whites.
1 P. M., 60 grams butter.

In this way the egg whites are gradually increased to twelve daily and the butter to 120 grams. On the third day, a glass of Vichy water is given, two hours before the first feeding, and the patient is instructed to sip it. On the twelfth day carbohydrate may be given, usually as mashed potato, farina or rice.

During the whole treatment, the egg-white should be given in the morning. No meat, soup or milk should be taken. Jarotzky allows cottage cheese, claiming that the constituent of the milk which increases the gastric secretion, remains in the way. It is also advisable that the patient remain in bed, and that he be isolated from all food odors to prevent phsychic stimulation of the gastric secretions.

I have used this treatment in eight cases of gastric ulcer, and found that the total acidity dropped from an average of 65 to 37 in two weeks. When carbohydrate was given, it averaged 39. After three weeks the free acid fell to 16, and the combined acid to 9. It is most important that, when the patient returns to a liberal diet, the acidity does not increase. In the first few days, the weight of the patient usually drops. Later, however, when carbohydrate and liquids are given, it increases, and at the end of two weeks there is usually to be observed, a gain of three to eighteen pounds.

The Jarotzky diet differs from that recently published by Coleman in the following particulars:—Coleman allows some water with the egg-white, and the latter may be boiled or whipped, and even salt may be added. As has been pointed out, heating and whipping alters the physical states of the egg-white in such a way that gastric secretion is stimulated. Water also increases the secretions, (Khizhin)[21]. In order to lessen the thirst sensation, water may be used to wet the lips, or it may be gargled, but should not be swallowed. Coleman also starts the treatment with a physic which further irritates the stomach, and his practice of having the patient fast for three or four days is objectionable.

The Jarotzky diet may be given on the first day, even to patients who are bleeding from ulcer. It does not emaciate the patient, and usually requires only two weeks for a cure. The biggest advantage is that it may be used in the patient's home under the direction of the family physician.

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PHYSIOLOGY OF THE QUARTZ LIGHT*

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The existence of every living organism on the earth depends upon the radiant energy from the sun. A large part of this energy is used simply in warming objects on the earth, but of far greater importance is that part which brings about chemical reactions.

Most of us, when we hear the term light, think of something that is visible. Instead we should think of it as an energy, very much like the energy of wireless telephone waves. In fact, except for a difference in lengths, the waves of light and of wireless are the same. Like the wireless, light waves are not only capable of being transmitted great distances—probably farther than wireless—but they may also be converted into other forms of energy at certain points. In the case of wireless, these points are receiving, or tuned stations. In the case of light they are sensitized cells. The wireless station picks up that particular wave length to which the instrument has been tuned and a record is made; but it must be remembered that there are an infinite number of wave lengths constantly passing the instrument that are not registered.

Comparable to the wireless receiving station is the retina of the eye. But the retina instead of being tuned to a special wave length has several tuning coils, or sensitized cells, and such a combination of these that it can receive the very numerous wave lengths which comprise the entire visible spectrum, yet it registers only a small part of the total spectrum. Those waves which comprise that part known as the invisible spectrum pass the retina without being registered as light. In the future it may be found that these waves do make a record, but the study of this invisible spectrum is an entirely new field in science and its extent is not yet known. It is known, however, that if the eye is exposed to ultra violet rays for a short time a conjunctivitis is produced and even blindness.

Another important sensitized cell, or part of a cell, which we may compare to the receiving station in wireless, is the chlorophyll of the leaf. This absorbs certain of the light waves and converts them into other forms of energy. The energy is stored as sugar, fat and protein. Not all of the rays that fall upon the leaf are used by it, however. It has been estimated that only 10 per cent of the incident light is absorbed. Nor is all of the acquired energy stored away in the plant; much of it is used at once in transpiration.

Chlorophyll and the retina of the eye are only two of the many examples of the sensitized cells which may be so aptly compared with wireless receiving stations. Undoubtedly there are many other such cells in nature about which nothing is as yet known.

Besides the receiving cells in nature there are the filters, by means of which the wave lengths can be differentiated. For example, a red pigment filters out of the long rays only. Glass, on the other hand, filters out the short rays which comprise almost the entire ultra violet part of the spectrum except the near end. Lead, sinc, and other metals each filter rays of different wave lengths. Chlorophyll pigment, as has been seen, absorbs rays of certain wave lengths and so may be used as a filter. Haacke[1] and Waller[2] have shown that if a leaf is placed over another and exposed to light the lower one will show no photosynthetic process as all the desired waves have been absorbed by the upper leaf. A simple way of demonstrating the photosynthetic process that takes place is to take a sunflower leaf, keep it in the dark over night, expose part of it to sunlight for about an hour, place it in warm alcohol, and finally stain with iodine. The part that was exposed to sunlight will show blue, due to the presence of starch, and the part not exposed will show no color. And so it happens with the lower leaf in the experiment. It takes no stain because the desired rays were absorbed in the filter. The amount of starch in the leaf varies from 6 per cent in the day time to 3 per cent at night, showing the dependence of this process upon the energy obtained from light.

This stored up energy, accumulated through the ages, and so familiar to us in the form of coal and oil, is the foundation of modern industry, and indeed, our very existence. As this energy is being slowly exhausted, methods of storing solar energy, especially that of light, will undoubtedly have a particular application in the future. Already, Moore and Webster[3] and later Baly, Heilbron and Stern[4] have synthetized formaldehyde by exposing an aqueous solution of CO_2 to ultra violet light in the presence of inorganic colloids. They also show that dilute solutions of nitrates exposed to ultra

*Read before the Meeting of Michigan State Medical Society, Sept. 10, 1924, Mt. Clemens, Mich.

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violet rays are covered into nitrates with an absorption of energy. This is the firts stage in protein anabolism.

At this point it may be interesting to mention some of the more common applications of ultra violet rays. In all paint and dye industries and in the manufacturing of cloth, the various articles are exposed to these rays and so tested in durability against sunlight. More recently ultra violet rays have been used in the study of new materials and it is probably through their use that the atomic scale will be reduced rather than increased. When metals are exposed to ultra violet rays they give off electrons, positively or negatively charged as the case may be. Zinc, which is negative, gives off a negative electron and becomes itself positive. Here we have light energy converted into kinetic energy, as witnessed in the electrons being discharged from the metal. Zinc requires a ray of certain wave length, but other metals require rays of different wave lengths for the same effect. Probably through such studies of their behavior under the influence of ultra violet rays some of our heavy metals will be found to be not true elements, but combinations of elements. It is also interesting to note that gold leaf, which has been negatively charged and thoroughly insulated, when exposed to ultra violet light, loses its charge.

In agriculture, also, much use may be made of the ultra violet rays. It is known that if lettuce is exposed to its light, a much heavier yield is given. Strawberries under the same conditions give an earlier crop, and the yield of cane sugar is heavier. On the other hand, if any of these should be overexposed to the rays, the resulting crop is much poorer both in quality and quantity.

Thus far we have considered only the photochemical and electrical, or the immediate reaction of the ultra violet light. It may be well to consider now some of the delayed reactions. Certain substances, when exposed to ultra violet light, absorb it and then give off a visible light which, of course, is of a different wave length. For instance, quinine solution, anthrocene and eosin, when exposed to ultra violet light give off a visible light and thus produce a fluorescence. These are examples of photochemical change with the storing of light energy and there is a delayed chemical reaction. Phosphorescence is an illustration of the same principle.

In considering what we have learned so far we note that only the light which is absorbed seems to produce any effect. After the important rays have been filtered, those that penetrate have no apparent effect, at least none that we are capable of observing at the present time. We have observed that the absorption may only apply to the very superficial layer of cells, but it is able to produce chemical changes in the entire general system, as, for instance, in the tree.

Ultra violet rays kill bacteria and fungi. Visible rays, on the other hand, do not ordinarily kill either of these, but they can kill bacteria in the presence of eosin. Eosin is otherwise harmless. This proves that there must be a chemical reaction between the eosin and the rays and then in turn the bacteria.

Fresh water crusteacea are also affected by the ultra violet light, becoming illuminated when exposed to its rays. The cyclops, if left in this state for a short time, becomes greatly excited and then lies motionless for hours if placed in the dark. When re-exposed to light, it again becomes greatly agitated. Certain fatigue experiments have been observed on the cyclops by ultra violet radiation. If the peripheral parts are exposed to the ultra violet rays, no exciting general effect is produced after a certain point is reached. If the peripheral nerves are cocainized, the results are still negative, but if some central anaesthesia like ether is used, the exciting effect is again present. This proves that there must be a photochemical reaction at the periphery. that is responsible for the general systemic effect.

Let us now consider the effect of the rays upon human beings. When a patient is exposed to ultra violet light for a fairly long period he generally falls into a profound sleep. On waking he feels refreshed and shows an exhilaration which reaches its height in three or four hours time. But should he receive an overdose—perhaps toxic, he displays a dizziness on rising to his feet, and later nausea and vomiting. The pulse becomes rapid and the patient is often subject to a peculiar fright. Depending upon the length of exposure, one exhibits an erythematous flush in from one to eight hours time which may persist for hours or several days. This again may be followed by a branny or scaly desquamation.

Blood changes also take place during this period. Dr. Sadakata[5] and myself, as well as others, have shown that a general leucocytosis develops under the influence of ultra violet rays. As a rule there is an incerase of from three to five thousand in the cell count, reaching its height three or four hours after exposure to the light. The count

will generally stay high from eight to twenty-four hours. From differential counts, we have proved that the increase is polynuclear in type. In cases of rather marked secondary anemia, we notice an increase in the hemoglobin after prolonged treatment. Changes in the calcium content of the blood may also be produced. As a rule, if the patient is rachitic or his blood low in calcium a marked increase in the calcium content is shown after several treatments. But if the patient has a practically normal calcium to start with, no increase is noticed.

Another factor and one which has been most encouraging to us is the stimulation of the appetites in children who formerly have shown no desire for any kind of food.

Finally as a delayed reaction, we have brown pigmentation of the skin generally known as sunburn. This is not caused by heat, but by the ultra violet rays; the most marked burns being obtained in the ice fields and in the snowy Alps. As shown by Hammerstein[6], this brown pigment is a derivative of Tyrosin which is closely allied to the proteins. Here again we have a chemical reaction. The brown pigmentation is the delayed reaction following the photochemical reaction that takes place at the periphery. Secondary reactions may occur from the absorption of the pigment.

TECHNIC

In exposing a patient to the rays, most workers show a tendency to push the treatment. We ourselves see no advantage in this. We have shown that in the plant the cells can absorb only a limited amount of light, and the same no doubt holds true in human beings. In the treatment of neuritis or other local conditions, it might be pushed to the point of blistering the skin, but in this case the actual physiology is simply that of a counter-irritant and therefore in taking up the uses of the ultra violet light, I will not discuss this phase.

The light used in general treatment is usually set at forty inches. The child must be stripped and the eyes shielded with amber glasses to prevent conjunctivitis. He gets a general exposure both front and back every day. The length of time is an important question. We feel that there is no advantage in extending the entire exposure beyond thirty minutes and probably less time would be better. The initial treatment should be three minutes gradually increasing to a longer period.

We also use a water cooled quartz light with attachments for treating various pathological conditions of the different orifices of the body, but since our department uses it only in treatinf severe stomatitis and diphtheria carriers, I do not feel justified in discussing its possibilities.

USES

The ultra violet light is a specific treatment for rickets and has been shown by Hess and Weintock[7] and Powers, Park and Simmonds[8] have shown that in the absence of sunlight or ultra violet rays, animals develop rickets. Hoag[9] has nicely shown in his work that it is also a specific for tetany.

From both Hess's and Hoag's work it is obvious that the use of the light is indicated whenever we have a low blood calcium or phosphate. Thus, it has been used in cases of hypersensitive rhinitis, hay fever, and asthma. These patients seem to be benefited during the period of treatment, but there seems to be no permanent cure. Gerstenberger[10] has pointed out that there is a low blood calcium in pneumonia. In view of this fact, others have tried the therapeutic value of quartz light in treating such cases. The benefit derived from such treatment is still questioned.

It is used again in various skin diseases such as eczema, psoriasis, and simple infections of the skin. In these conditions, however, it is merely an aid. We have also found it valuable in conjunction with a diet in the treatment of secondary anemias.

A group of cases which have proved most interesting at present is that of children between the ages of eighteen months and three years who will not eat. We can find no cause for this lack of appetite. By treating these patients with ultra violet light, in many of them the desire for food returns and the results have been surprisingly good.

In all types of tuberculosis the light has been used with quite good results.

DISCUSSION

In going over the physiology of ultra violet light it must be apparent to all that it has a very definite effect upon plant and animal life. An absence of the light is distinctly harmful, but on the other hand over-exposure is not a good thing. It must be remembered, moreover, that these rays are essentinal to the healthy person as well as to the sick. It seems to me that such an important regulator of metabolism should not be prescribed merely for a particular disease, but should find its greatest use in preventive medicine. Dr. Cowie certainly sees into the future when he prescribes three minutes daily exposure to ultra violet light for all babies and children on his service. The three minutes in this case is the longest time that will fit in in an economic sense. It seems that some such regime is absolutely essential in this zone and in this stage of civilization. Most of our sunlight is filtered by the heavy clothing that most of

us wear. These facts are especially true during the winter months. In this way we have removed the natural rays and have made no attempt to supply a substitute. Hess and Lundagen[11] have shown that there is a definite seasonal tide of blood phosphates in infants.

CONCLUSIONS

Ultra violet rays are a very important regulator of metabolism for both plants and animals.

Leaving out their value as a counter irritant and in the healing of local wounds, the rays should have their chief use in medicine as a preventative.

The results are practically the same whether the source be an arc light, quartz light, or sunlight, except that in the winter time in this locality it would seem to be economically better to use some artificial means of getting the rays.

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IRREMOVABLE FOREIGN BODIES IN THE EYE*

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The technique of the removal of foreign bodies from the eye has been so thoroughly given by Haab, Risley, Jackson, Sweet, De-Schweintz and many others that it would not be profitable to take up the time of the section with a repetition of what these men have given. When, however, a foreign body can not be removed each case presents an individual problem, the solution of whirh is dependent upon many factors; therefore such cases must always call for the exercise of the highest medical and surgical judgment, and as a consequence the interest in these cases must ever be perennial.

The presence of a foreign body in the eye is a most serious condition and unless the proper medical and surgical treatment is carried out total loss is almost inevitable. If such a body is removable without serious injury to the delicate interior of the eye the gravity of the situation is reduced in proportion to the extent of the trauma and the presence or absence of infection. A correct diagnosis is therefore of the utmost importanse.

The subjective symptoms must necessarily vary greatly with the size and character of the foreign body and the nature of the injury to the eye. The patient most frequently gives a history of sudden more or less violent pain, following the striking of a piece of steel or iron with a hammer, cold chisel or other violent contact of a hard body with iron or steel, less commonly brass or bronze. In other cases there is a history of the explosion of fulminating caps, the victims most frequently being children who are playing with caps left about with inexcusable carelessness, by those who are using dynamite. When the patient has been injured by dynamite or by the explosion of the various war missiles the nature of the foreign body is so variable that the history is less helpful in the diagnosis. Dirt, splinters of bone, stone, wood and other substances are sometimes present; rarely bird shot enters the eye. Accompanying the pain there may be rapid or gradual loss of vision, hemorrhage, or escape of aqueous, lens or vitreous. Occasionally there is little or no pain after the first blow, especially when there is only a minute perforation of the cornea. Later, if not at once, visual disturbances usually develop, and often after two or three days, the severe pain of iridocyclitis, if infection of the anterior zone has taken place.

To determine the character and extent of the injury a careful, painstaking, thorough examination is necessary. Laceration and extensive wounds are at once evident. When an explosion has lacerated the neighboring tissues the injury may so overshadow everything else that the examination of the eye is perfunctory or superficial. In such cases, if cocainization is insufficient, the examination should be conducted under general anesthesia.

Often the external injury is so slight that it is easily overlooked. In such cases careful focal illumination of the fluorescine stained

*Read before Section on Ophthalmology, M. S. M. S. Annual Meeting, Mt. Clemens, Sept., 1924.

structures with the loupe and continuation of the examination with the ophthalmoscope is imperative. The cornea, limbus and epscleral tissues should be carefully searched for minute wounds. Here fluorescine is often of the greatest value. Behind the external wound it is not unusual to find a small hole in the iris, especially difficult to see if it is situated near the iris angle or in the pupillary zone; a slight notch in the pigment border may be the only evidence that the iris is injured. If the injury is in or near the pupillary zone the lens capsule or lens is almost always injured. Toward the periphery, however, the missile often misses the lens altogether. When the lens is injured the evidence of the presence of a foreign body is most convincing; if however the lens has escaped injury only the ophthalhoscope, supplemented in many cases by an X-ray examination, will reveal its presence and location. In the majority of cases the intraocular tension is lowered, therefore careful palpation of the globe should not be neglected. If the foreign body is of considerable size or one of the larger vessels of the iris or ciliary body is injured the anterior chamber may be so filled with blood that only an X-ray examination will reveal the location of the object. The reaction following ocular injury is dependent to a large degree upon intraocular hemorrhage, injury to the lens, and infection. If hemorrhage is present in the anterior chamber it is at once evident; if in the vitreous chamber little or no red reflex can be seen with the ophthalmoscope.

Infection, if it occurs, usually shows itself on the second or third day. Bacteriological examination may reveal its nature, but inflammatory exudates in the wound or anterior chamber, punctate deposits on the posterior surface of the cornea, changes in the color or texture of the iris, and marked ciliary injection are easily seen if looked for, and are almost certain indications of infection and consequent iridocclitis of a serious nature. Dilation of the pupil is of great value in the diagnosis. When inflammatory reaction has resulted posterior synechia will be revealed and in any case the examination of the lens and vitreous chamber greatly facilitated, or anterior exudative uveitis directly behind the iris may be exposed.

When hemorrhage or lenticular opacity is not too extensive the foreign body may be frequently seen with the ophthalmoscope with a plus seven, more or less, before the sight hole. When seen most foreign bodies appear as glistening objects, situated rather well forward, in the inferior portion of the vitreous, although it is not unusual to find the object enmeshed or otherwise supported, in the posterior portion of the fundus. Here it will be found necessary to use a strength of lens adapted to the patient's refraction. If the missile can be seen its magnetic character can often be determined by bringing a magnet quite close to the eye and watching for movements. If the object is sufficiently opaque to cast a shadow an X-ray examination not only removes doubt as to its presence, but with a Sweet or some other localization apparatus its situation can be accurately determined and invaluable information obtained as to the procedure to be adopted for its removal. Occasionally the pull by a giant magnet brought close to the eye will elicit pain and thereby aid in the diagnosis, but there is a possibility that a change in position and further injury may be thus produced, therefore, unless it is an old case this method should rarely be resorted to.

The classification of foreign bodies as removable or irremovable depends in the individual case upon the thoroughness of the examination and the care with which the history is taken. Nearly all foreign bodies anterior to the lens and many of those inbedded in the iris or zonula are removable. Unless the patient is unusually stoical a general anesthetic is generally advisable if the object is to be removed with a minimum amount of injury. Even when the object is magnetic a great gain in safety may be obtained by this means in these cases.

Foreign bodies situated wholly within the lens are benign as to the integrity of the globe and may be removed, if desired, with the lens, after all inflammatory reaction has subsided; as may also some of those situated in the anterior vitreous, at the same time that the cataractous lens is removed.

When, however, the object lies wholly within the vitreous a successful removal depends to a very large extent upon whether it is magnetic or not. Nearly all fragments of iron or steel are magnetic, the only notable exception being manganese steel. Occasionally non-magnetic objects may be removed, when they can be accurately localized by the X-ray, by cutting directly down upon the object, but probing about in the vitreous is about as dangerous as leaving it alone.

As early as 1624 Wilhelm Fabry extracted a piece of steel from an eye with a magnet after all other attempts had failed. Fabry quaintly says that the suggestion for its use was made by his wife and that she held the magnet while he held the lids apart. The

eye rapidly recovered.* The next recorded successful case is that of Dixon of London, removed in 1859. The introduction of the electromagnet by Herschberg in 1877 and of the giant magnet by Haab in 1894† brought this method to the notice of the whole profession and its adoption has been rapid and general.

Unfortunately, however, all magnetic objects are not properly removable. Cases of serious iridocyclitis or other infectious processes rarely regain useful vision and unless the other eye is also blind usually no effort should be made to remove the foreign body. Eyes which do not see because of simple amblyopia are not necessarily useless. Useful vision often develops in such eyes if the other eye is lost.

The classification of those cases which are often seen some weeks or months after the accident is not so easy. Some of these foreign bodies may be removed where they can be accurately localized and their location is favorable. Epecially to be recommended for these cases is the scissors operation described by Edward Jackson.‡ The removal of missiles which have passed through the dangerous ciliary zone is generally not advisable. Occasionally, however, the wound is small and clean, the reaction is slight and infection does not occur. If the object in such cases is small its removal may be attempted by the magnet. If iridocyclitis does not follow the operation the eye may be saved.

The prognosis must necessarily vary with the character of the injury, and the gravity of associated conditions or complications. That a foreign body in the eye does not necessarily entail loss of vision is shown in cases of war injuries, dynamite explosions, fulminating cap injuries, etc., where one eye has been destroyed and the other eye contains irremovable objects; in some of these cases partial sight, even useful vision has been retained. Also it seems to have been the experience of the late war that foreign bodies in the eye do not produce sympathetic inflammation. This trouble seems rather to be caused by infectious uveitis.

Irremovable foreign bodies may be classified as (a) those which are non-magnetic; (b) those too large to remove without destructive laceration; (c) those inclosed in organized tissue and found to be irremovable; (d) those in which the ciliary zone is seriously injured; (e) all cases in which infection has occurred unless the other eye is already blind.

(a) In general, it may be said that the presence of a non-magnetic foreign body in the eye is an indication for enucleation, if however, the fellow eye is very poor or blind, if the injury is slight, if no infection follows, if the foreign body be wood, stone, lead, or glass enucleation is not always the best procedure. It is true that the viterous usually degenerates, vision is lost, and the eye atrophies, but vision is not always lost, therefore, whether the treatment be radical or expectant depends upon the associated or modifying conditions. In the case of copper or steel in which chemical reaction always takes place the provnosis is less favorable. Glass is born better probably than any other object; stone or wood better than steel, copper, brass, or bronze. In any of these cases, however, an effort should be made to save the eye if the other eye is useless. (b) When the foreign body is too large to admit a safe removal, or when the globe is seriously lacerated, the eye will in any case be lost and enucleation is the only proper procedure. (c) When a foreign body has been present in the vitreous a lonp time and no reaction has resulted it is usually encapsulated and its removal is probably more dangerous than keeping the eye under observation. If symptoms develop enucleation should be done unless it is a seeing eye and the other one blind. When the injured eye is blind, atrophied or painful enucleation is the commendable procedure. (d) When the seat of injury is in the ciliary zone it should never be forgotten that such wounds are dangerous. The development of infection, uveitis, or the slightest signs of sympathetic irritation indicate prompt enucleation. If such injury is large enucleation should be done at once, unless the other eye is blind. (e) When infection has occurred no time should be lost in attempting to save the eye; unless the other eye is without sight enucleation is imperative.

When it is considered wise to treat an eye containing an irremovable foreign body expectantly the patient should rest quietly in bed, in a darkened room, a brisk cathartic administered, and forty to sixty grains of asperin given daily. Ice compresses for twenty-four to forty-eight hours are frequently helpful. During the treatment daily blood examination for increases of the large mononuclear leucocytes should be made. Locally, the eye should be kept clean, the pupil dilated with tropin, mercurochrome or argyrol instilled, and a protective dressing applied, as in post operative cases. On the slightest sign of infection or uveitis salicy-

*Am. Ency. of Oph. Vol. VII P. 5133.

†Arch. F. Augenheil. Vol. 68, P. 1.

‡Jackson, Scissors Magnet Extraction Jour. Am. Assn. 1909 Vol. 52, P. 1985.

lates after the method of Harold Gifford should be given, meanwhile remembering that we have from ten days to two weeks of practical freedom from danger of sympathetic ophthalmia. Should the inflammation continue, or increase, or signs of sympathetic irritation in the other eye develop, enucleation may still be done in those cases where useful vision in the other eye is present. If on the other hand the reaction diminishes and the eye steadily improves the chances of saving it are good, provided chemical reactions from metalic substances do not set up destructive degeneration.

CONCLUSIONS

To recapitulate (1) blind eyes containing non-magnetic foreign bodies in the vitreous chamber, those having serious wounds in the ciliary zone, those presenting serious or extensive lacerations and as a corollary in which the foreign body is large, infected eyes, and those suffering from severe iridocyclitis demand immediate enucleation. Attrophic or degenerative changes also indicate enucleation.

(2) When the vision in the injured eye is not destroyed and the object non-magnetic an attempt may be made to save it, if the injury is insignificant, provided there is little or no reaction and infection does not develop. In the case of magnetic bodies the magnet should be used. The removal of the magnetic foreign body in old cases depends upon localization and the location. Blind eyes showing no signs of degeneration or infection may be retained, but the prognosis is better if the foreign body is magnetic or removable.

(3) When the foreign body is not removable the consequences of loss of time and suffering during a prolonged convalescence, and inability of the patient to remain under observation weigh heavily in favor of enucleation.

(4) Seeing eyes containing non-magnetic foreign bodies may be treated expectantly if there is little or no reaction or degeneration, or in any case if the other eye is blind. Simple amblyopia is not blindness.

(5) When an attempt is to be made to save the eye rest in bed, salicylates, atropin and post operative surgical treatment guarded by frequent blood examination should be rigorously followed.

(6) All eyes showing signs of sympathetic irritation demand immediate removal of the injured eye, unless vision is still present and the sympathizing eye is blind.

(7) A foreign body retained within an eye does not of itself set up sympathetic inflammation.

DISCUSSION

Dr. Edward Jackson, Denver: I think the paper has very well covered both the diagnosis and the consideration of whether foreign bodies are or are not removable, and also in a general way the treatment. Perhaps the most profitable discussion would be to take up just a few special cases that might be considered either as irremovable or as on the border line.

One class of case is the non-magnetic foreign bodies. That is a large class and several different kinds of substances fall into that class. Metallic foreign bodies, both copper and brass, are supposed to be inimical to the future of the eye and give a very bad prognosis when left behind. I have seen a fragment of copper cap left in the vitreous for six years after an accident without any noticeable change in the eye and without causing irritation; but ultimately we did enucleate the eye because of degenerative changes that occurred. That case, and some others of a similar nature, although not running so long a course, have impressed me with the probability, not certainty, that perhaps copper so imbedded in the eye is not justifiable for haste in deciding that the foreign body should be removed, or in taking such a step as enucleation. An eye may seem to be absolutely blind immediately after an injury, you may get no evidence of light perception, and this may be due to a dense or an extensive clot, and some eyes do develop some light perception. So in that class of cases, if laceration or occurrence of infection does not hasten the decision, you may wait a little while before deciding whether such an eye should be enucleated.

Stone, of course, varies. There is a great many different chemical compositions that come under that head. Some of them we do not know what the character of stone is, and some of them can surely be tolerated for long periods. Iron can be tolerated for long periods without giving rise to evidence of siderosis. I remember one case where a particle of steel was suspended in the remnants of the lense capsule and iris and was visible 28 years after the injury, and at that time was just beginning to make trouble. Hirshberg reported one case 30 years after injury, and there was then no trouble; but within two years afterwards he had to enucleate the eye from the effects of the metal.

So while we have time to consider and plan the treatment of such eyes, we must not give a favorable prognosis. I recall one case in which a stone was imbedded in the lens, a small fragment of stone, which caused no trouble for 25 years after the injury. The man was injured away up in the interior of Wyoming and it was three weeks before he could get any help at all. His eye gradually quieted down and remained quiet, and from that sort of body one would think it would remain quiet the rest of his life. That, of course, was not an irremovable foreign body, but such cases influence our prognosis with reference to irremovable foreign bodies.

There is another class of case that Doctor Slocum did not specially allude to, and that is where foreign bodies are small and so numerous that it is impossible to remove them. These come generally from explosions. I recall one case particularly that had an useful eye for ten years afterwards, although the eye was slowly degenerating, in which there must have been fifty minute particles of sand and rock in the cornea and iris. This was after a dynamite explosion.

With reference to these cases, I think the prognosis would be influenced a good deal by the surroundings—the place the injury occurs. I have

seen several of these that have occurred from dynamite explosion of sand and rock in mining operations in the Rocky Mountains, and I have been struck in all of them with the absence of infection, and even among the coal miners of Colorado infection is rather the exception. Certainly it is not the rule from small fragments of coal. Whereas in Philadelphia the cases I saw were invariably infected. I hink a large proportion of those were seen immediately after injury at the mine were found to be infected. I suppose that during the war such injuries occurring in Flanders and northern France were almost always infected, but certainly in the Rocky Mountains infection is rare. In this particular case to which I have alluded where there were so many minute particles of rock imbedded, to have taken them out would have destroyed the cornea almost certainly, and very likely the conjunctival sac.

Another class of injuries is much less common now than when they used the old black blasting powder. Sometimes a large number of these grains yould become imbedded in the eye, even in the cornea. The recommendation that I made a good many years ago and the plan I practiced was, and I think still is, a good one in some of these cases—not to attempt to pick the grains out, but to use a galvanic cautery and destroy the cornea. That ought to be done a few days after the injury.

There is one class of foreign bodies that are located and proved to be irremovable—the penetrating magnet foreign bodies that pass into the sclera and even pass out of the sclera. I think that today the greatest error with reference to the localiation of foreign bodies is in regard to these bodies that are about the sclera. The nearness of the source of the rays with which the picture is taken influences, of course, their divergence at the eye. If the tube is rather near the eye that divergence has a magnifying effect on the eyeball, so that with the most accurate localization, if that divergence is not taken into account, foreign bodies will appear to be within the sclera or eyeball that are really outside. There have been quite a number of these cases reported and I think it is the greatest error in localization. In some such cases persistent efforts have been made to extract with a magnet when such extraction was impossible. The case had better be left alone, or if any effort was made it should have been outside the eyeball, by going back and with a pair of forceps dislodging the body and bringing a magnet in contact with it and removing it backwards.

With reference to the scissors magnet extraction mentioned, the value of that depends more largely than we realize when we first devised it (and I think the failure to emphasize that has prevented its more general use perhaps) upon having the blades of the scissors in the direction of the magnet force. It is essential that the blades of the scissors should conform to the line of force. You must note where the tip of your magnet is, and then the direction of the blades fo the scissors must conform to that line. Scissors magnet extraction is essentially an attracting of the foreign body so that it will push in front of it any tissue that is firm enough to resist—push that tissue into the jaws of the scissors. If the foreign body is not pushed directly toward the jaws of the scissors, but lies alongside, the tunnel the blades makes goes alongside the foreign body and does not come into contact with it, and there is failure to extract. Several of the cases reported in the last few months illustrate that. In one hree trials were made with the scissors magnet, with failure. At a subsequent trial the tip of the magnet was introduced as far as possible into the opening, and succeeded. The tip of the magnet when it was brought into close contact with the foreign body drew the foreign body through. But if the blades of the scissors are carefully kept in the direction of magnet force it makes a tunnel to the foreign body and after you feel the foreign body against the scissors it may be worth while to make two or three snipping movements to divide the tissue and then the foreign body will slip off towards the scissors.

Dr. Edward J. Bernstein, Detroit: Will you say how far you go in saving the globe, even though there is no hope of saving the sight, provided the ciliary portion is not involved?

Dr. Edward Jackson: I should sacrifice the globe and not take any chances of sympathetic ophthalmia. I think, however, as Doctor Slocum has pointed out, that we are not hurried in the first two weeks perhaps, and I should not sacrifice the eyeball at that time unless there is very complete disorganization of it, or the importance of shortening the patient's stay in the hospital is to be considered. I think we can wait until the type of inflammation begins to be fairly manifest before deciding that question. I think that injury, even foreign body lodged in the ciliary region, does not necessarily cause sympathetic ophthalmia. What does cause sympathetic ophthalmia is a certain type of inflammation, and we can generally wait until that type of inflammation occurs before deciding in doubtful cases. The possibility of saving the eyeball is important, and if the eye remains quiet, no matter how badly the globe is injured, it can be left. I think the danger of sympathetic ophthalmia in these cases is one that the surgeon is not justified in assuming. It belongs to the patient, to the corporation and the insurance company, and the question must be put up to the patient or the representative of the company. There is no reason for us to go out of our way as surgeons to assume an insurance risk that does not belong to us.

Dr. Charles H. Baker, Bay City: There are a few points that personal experience has taught me, and one is in regard to the magnet. It is well known that magnet force lessens in proportion to the square of the distance from the tip of the magnet. That is the cause of the failure of the magnet to do its work. In one or two cases I have had of a penetrating steel particle passing through the ball and lodging in the sclera posteriorly, it being of a ragged type, would not come out with the magnet at all. In those cases I have taken a steel probe and passed it through the vitreous and in contact with the foreign body, put my magnet in action, and released the mass immediately. If your magnet is in contact with the foreign body you are bound to get it. If it is removed from the foreign body by any distance, you may not get it.

In one case I had a piece of steel lodged in that way which gave pain on the action of the magnet and demonstrated it was there, but it would not move. I passed the steel probe in that way and it was loosened from its attachment, and it immediately jumped in the direction of the opening. The opening was to the outside of the ciliary body, but it did not have the line accurately and it came behind the iris. I had a new problem then—a foreign body which had been removed from its original location. In that case the only thing that could be done was to make a corneal incision and iridectomy and bring the foreign body out through the opening thus made, which I did, and saved the eye.

As to probing into the vitreous, I think the foreign body has already made an opening into the vitreous, and if you can follow the track of that

with your steel probe you will not materially increase the danger of losing the eye from loss of vitreous. So it is quite important to know in a general way, if you are not able to see the foreign body with the ophthalmoscope, the direction the foreign body took when it entered the eye, and I make it a point always to inquire of the patient what he was doing, what position he was in, and try to ascertain relatively whether he was looking in the direction the foreign body entered, and the position of the eyeball and the missile. In that way you can get a pretty good line on the angle at which the foreign body entered the eye.

Dr. Frank L. Ryerson, Detroit: That brings out the fact of how impossible it is frequently to exactly locate a foreign body in the eye. A boy was hit in the eye with a BB shot, and I saw him a few days after, at which time there was a considerable amount of oedema and laceration. X-ray showed a foreign body in the eye 8 mm. or more back of the cornea. Knowing the shot was nonmagnetic, it became a question of what to do with the eye. There was loss of vision with light perception. The suggestion was that the eye be removed. I thought the same thing, but I had another X-ray made which showed the shot to be within the iris. I sent him to the hospital, and under general anasthetic I extracted the shot from near the inner canthus of the lower cul de sac. That left the eye in, and the boy had some vision afterwards.

Dr. Don M. Campbell, Detroit: The subject which Dr. Slocum has so conservatively presented is one of great interest because of the large number of injuries that occur, especially in industrial centers such as Detroit, and also because of the important questions that arise as to what can be done with these various types of cases.

The diagnosis of the situation of the foreign body within the eyeball, as Dr. Jackson has pointed out, is sometimes very different. It depends a good deal upon just how accurate an X-ray diagnostician you have at your disposal. We have been fortunate in Detroit in having an X-ray expert who has been able to very accurately locate these foreign bodies and we very seldom, if ever, have much difficulty in their management if we have his help.

The thesis of the paper is "irremovable" foreign bodies. Dr. Slocum, however, has gone outside his declared thesis, and perhaps it may be permissable to refer to some other questions. The question of the possibility, or probability, of impending sympathetic ophthalmia is one of the very greatest importance, and Doctor Jackson has referred to the type of inflammation or infection that occurs following the injury. That is really the crux of the matter, as brought out by Fuchs in his investigations. He has given to us a type of pathology following injury within the eyeball that very definitely lays down a line of pathology that is usually to be followed by sympathetic ophthalmia. It has appeared to me in a general way that if we consider the type of infection or inflammatory reaction within the eyeball in connection with careful physical examination of the eye that in most cases it will correspond to Fuchs' pathology of the eye that is likely to produce a reaction in the sympathizing eye. That is a point of great importance in our opinion in determining what we shall do with an injured eye, whether we shall enucleate or not.

Then again, the blood picture that Doctor Slocum referred to is a matter of great importance in making a diagnosis and in making up my mind as to what I shall do in an individual case. I am aware of the fact that this large mononucleosis is not a pathognomonic picture; it does not mean impending sympathetic ophthalmia, but it enables us perhaps to make up our mind in a doubtful case. I have had an interesting experience with mononucleosis. I had a case of sympathetic ophthalmia following cataract operation in which there was a blood picture that showed an increased mononuclear count up to 15 or 16 per cent. In that case enucleation of the offending eye, which was not done until after the sympathizing eye was well under way to sympathetic ophthalmia, did not result in reduction of the mononuclear count. It stayed up as long as the sympathizing eye remained inflamed. On the other hand, I have had two cases in which there was apparently impending ophthalmia, in which enucleation was done early, and within 48 hours after enucleation the mononuclear count reached normal.

Another thing Dr. Slocum referred to that is of value, and that is the perforation of the iris by small bodies that go through the limbus. It is true that it is sometimes difficult to see the perforations when they are near the limbus or near the pupillary border. One thing that has been of great value to me in determining these perforations is transillumination. Place the lamp well back and throw the light from behind. These perforations, even very minute, will show as a red spot the same as a light coming through the pupil.

I would like to refer to two cases of diagnosis or location of foreign body that seemed to me very interesting. One was a man who had a wound of the eyeball, we thought a perforated wound, and we found a foreign body. We had him X-rayed and the X-ray diagnosis was that he had a foreign body located as we figured it out from a Sweet chart, in the neighborhood of the ciliary body. We subjected the body to the magnetic pull of a giant magnet, but could not elicit pain, nor could we demonstrate there was foreign body in the eye. In looking over the individual a small black spot was found on the edge of the lid. It looked like the end of a cut-off lash, but on investigation we found it was a foreign body just on the edge of the lid, and coming in contact with eyeball it was easily localized as being within the eyeball or ciliary region.

We had another case in which the X-ray did not give us the proper help, where we could see a mass of some sort in the iris. We had him X-rayed and the report came back negative. We were not satisfied, so we took a magnet and placed it in front of the cornea, turned on the current, and we could get movement of the black spot, so we concluded it was foreign body. By manipulation we finally dislodged and removed it. The explanation of that, it seems to me, might be that this being a small foreign body in the iris, and there being free movement, that at the time the picture was taken there was contraction of the iris and the foreign body moved and therefore did not make the proper impression upon the X-ray plate. It offers the practical suggestion that in such cases it might be well to immobilize the pupil, either by a miotic or mydriatic, at the time of examination.

One other instance of localization of foreign body was that of a man who had a small wound of the eyeball, in which there was found a green and black spot on the lens. It looked as if he had a foreign body in the lens. He was X-rayed and the report came back that there was no foreign body. The X-ray was repeated, still negative; and yet we could see this black spot. It might easily have been mistaken for a pigment spot or a small dislodged bit of pigment. However, the case went on to complete cataractous changes and finally in the course of time the cataract became mature and was extracted three weeks ago. The foreign body was in the lens, and as a matter of curiosity

I exposed it to a giant magnet, but it would not attract. It was friable—I think it was perhaps some sort of carbon.

We always use local anesthesia in the removal of these foreign bodies, if we can secure the co-operation of the patient. One of the most important things in the removal of intraocular foreign bodies is promptness of removal. I have learned the lesson many times that hours may make a difference in the result, so in our work with foreign bodies within the eyeball very prompt removal is one of the important things.

Dr. George Slocum (closing): In closing I wish to thank Dr. Jackson for his very kind discussion. He is one to whom we have all been accustomed to look as the final authority in all questions pertaining to diseases of the eye.

Dr. Jackson mentioned numerous foreign bodies seen in the eye. I think that the experience of some of the surgeons during the war was that some of the explosions produced numerous foreign bodies in the eye, and in some of these the other eye was destroyed, but the eye in which there was a foreign body retained useful vision. Of course the ultimate outcome depends upon time and experience. It has been our experienc that dynamite explosions are less liable to produce infection than fragments of metal.

The matter of localization technic I purposely avoided. The bringing in of the outside subject was for two reasons. In the first place, as a background, and in the next place that I might give opportunity for the Section to discuss points of general interest in relation to foreign bodies in the eye, even though I did not bring it into the paper itself.

In regard to the removal of foreign bodies by probe, the remarks of Dr. Jackson were quite pertinent to the subject; but you may not have noticed that it was probing non-magnetic foreign bodies, not magnetic, that I warned you against. I still believe that magnetic foreign bodies can be probed for.

The direction of the path of entrance can frequently be seen by the ophthalmoscope if one is careful. If you run through several numbers of lens, particularly around 7, you will be able in many cases to detect the path which the foreign body took. I think you will also find that the foreign body frequently goes to one side, that it does not follow the path it followed before entering the eye.

The subject of sympathetic ophthalmia was not entered into only as it might offer a means of warning and prognosis. I avoided it because it is too large a subject for this paper. But I was very glad that some of the members took it up and developed their ideas on the subject because they are always of value in a meeting of this kind. We are here to help one another, so these points are of value. You may not have noted that I spoke of sympathetic irritation. Sympathetic irritation is not sympathetic ophthalmia or sympathetic inflammation, as you all know.

In regard to the magnet pull in front of the lens, I do not think that is important. If the foreign body is in front of the lens you will easily demonstrate its presence by the magnet. I must repeat my statement, however, that I believe that a general anesthetic is in many cases necessary, because children do not co-operate. I have had several cases of children where, if general anesthetic had not been used, the foreign body would not have been removed. Sometimes adult patients will not co-operate—they squeeze the eye or roll the head; but with a general anesthetic I think you will secure better co-operation.

THE TREATMENT OF CANCER OF THE COLON*

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Cancer of the colon is of interest to surgeons because it is so common, and because of the high mortality which may result from operation. The stomach is probably more often the seat of cancer than any other portion of the intestinal tract. Primary cancer is extremely rare in the duodenum, and is infrequent in the small intestines; in the oecum it again becomes common, and the incidence increases with the downward course of the colon, probably being greatest in the sigmoid and rectosigmoid.

Because of the virulency of the organisms in the contents of the colon, and because in many cases in which operation is performed, there is either partial or complete obstruction, the removal of cancer of the colon is often followed by fatal results. The virulency of the infection in the bowel walls surrounding the growth probably contributes to the production of the high mortality associated with this type of case. The thinness of the bowel wall and its limited blood supply make healing less rapid than in other portions of the intestinal tract, and when there is gaseous distention before safe healing has taken place, leakage may easily occur along the suture lines, and result in fatal peritonitis. On the other hand, patients who survive early operation for malignant conditions, have an excellent chance to remain well, as it is often possible by wide resection, to remove not only the growth, but also the glands draining the affected bowel. The end results following operations depend largely on the extent of the disease at the time of the operation and, as in cases of cancer in other regions, are much less satisfactory when the glands are involved at the time of the operation.

The operability in a given case in which no distant metastasis can be demonstrated depends largely on the ability and experience of the surgeon, and the amount of risk he is willing to assume. Certain growths, which through inflammatory changes have become fixed to the surrounding structures, are operated on with difficulty, and operation should be attempted only by surgeons who have had considerable experience with this type of case. The mortality decreases and the percentage of operable cases increases with a surgeon's experience in dealing with the condition.

*Read before the Section on Surgery of the Michigan State Medical Association, Mount Clemens, Mich., Sept. 10, 1924.

Modern methods of diagnosis by the aid of the X-ray have greatly increased the number of cases in which an early diagnosis can be made, and it is thus often possible to make a definite diagnosis of malignancy when the clinical symptoms are vague. The early clinical symptoms are intermittent pain, associated with gaseous distention and increasing constipation. Often the pain is crampy in character, lasts for a short time, and as a rule, is relieved by satisfactory evacuation of the bowel, or by the passage of gas. It may also be relieved by a sudden change in the location of the gases in the intestines. Blood and mucus may appear in the stools, early in the course of the disease, and often there are alternating attacks of diarrhea and constipation. In the latter stages of the disease patients often become anemic and cachectic, an dlose markedly in weight and strength. Profound anemia often occurs early in patients suffering from cancer of the cecum and ascending colon. X-ray examinations should always be made in such cases, and if a filling defect is shown, the diagnosis is fairly certain.

The operative mortality may be reduced by carefully preparing patients for the operation, by performing the operation in stages if there is obstruction, and by careful treatment after the operation. The possibility of obstruction should be carefully considered, as the preparation differs according to the amount of obstruction present.

Patients without obstruction are probably best prepared by administering a purgative, like castor oil, about three days prior to the day set for the operation, and an enema each night afterward. After the purgative has been given, the patients should be kept on liquids, such as water, tea, ginger ale, lemonade, orangeade, chocolate, and sugars. All proteids are withheld. For twenty-four hours before the operation, a teaspoonful of paregoric should be given every three or four hours, to diminish the intestinal juices and thus produce constipation. If patients are prepared in this manner, the intestines will usually be empty or contain solid fecal material at operation, and it may therefore, be performed with a minimal amount of soiling from fecal material. The complete change, before the operation, to a small residue carbohydrate diet and liquids tends also to change the flora of the intestinal bacteria.

Patients who show evidence of partial obstruction should not be purged on account of the danger of precipitating acute obstruction. The usual preparation consists of an ounce of mineral oil three times a day, and an enema night and morning for from three to five days before operation. During this time the patients are kept on liquids, fruit juices and sugars, as is suggested in cases without obstruction, and are given paregoric for twenty-four hours before the operation.

If there is acute obstruction, nothing is to be gained by pre-operative preparation, and early operation for the relief of the obstruction offers the patient the best chance. Radical operation in such cases results in a high mortality, and it should not be performed. The bowels are usually filled with liquid material which teems with virulent organisms, and it is almost impossible to operate without considerable soiling. There is infection and edema in the bowel walls for a considerable distance beyond the growth; these tend to prevent satisfactory healing, and operation under such conditions is usually followed by fatal peritonitis. A considerable difference is noted in the mortality following radical operations in non-obstructed and partially obstructed cases, and for this reason preliminary operation for the relief of even partial obstruction should always be performed, if possible, before radical resection is attempted.

The type of operation selected in a given case should depend on the location of the growth and the amount of obstruction and infection. Occasionally cancer occurs without obstruction, and without inflammatory reaction surrounding the growth. Nothing is to be gained by the two stage operation in any such cases; and by performing a radical resection, and an enterostomy or appendicostomy at the same time to relieve the gaseous distention after the operation, the procedure may be quite safely carried out. It has been my experience that the mortality is lowered in cases in which there is obstruction and infection, if it is possible to perform the operation in stages. A short-circuiting operation, or an enterostomy or colostomy, is done first to relieve the obstruction. After two or three weeks the inflammatory reaction surrounding the growth will usually almost subside, and the growth will present an entirely different appearance. A radical resection may then be performed with much greater safety.

In cases of cancer of the cecum, ascending colon and hepatic flexure, in which there is no obstruction, a one-stage operation for resection of the ascending colon with a lateral anastomosis between the lower ileum and transverse colon, may be performed. It seems safer to make, at the same time, an enterostomy in the lower ileum and transverse colon, may be performed. It seems safer to make, at the same time, an enter-

ostomy in the lower ileum with a smaller catheter. If there is obstruction I usually obtain the best results by making an ileocolostomy between the lower ileum and the transverse colon, and resecting the ascending colon after two or three weeks. At the first operation, the ileum should be cut across distal to the anastomosis, in order to divert the passage of the bowel movements from the affected bowel and thus place this portion as nearly as possible at rest.

Primary resection for cancer of the transverse colon carries a high mortality; it may be done more safely by making a temporary enterostomy or appendicostomy at the same time. On account of the mobility of the transverse colon, it is often possible to remove cancer in this portion of the bowel by an operation of the Milkulicz type. The first and second stages of the operation may be performed at the same time. When possible, an appendicostomy or a cecostomy should also be performed in order to prevent postoperative gaseous distention.

It is difficult to use the Mikulicz type of operation if the growth is located in the region of the splenic flexure or in the descending colon as far down as the beginning of the sigmoid flexure, on account of the fixation of this portion of bowel. If there is no obstruction, a primary resection with a temporary enterestomy may be performed. If there is obstruction, a colocolostomy or a colosigmoidostomy, followed by a resection later of the affected area, probably is the safest operation. The sigmoid loop is usually quite mobile, and an operation of the Mikulicz type can ordinarily be satisfactorily performed for a malignant growth at this point. Walters and Buie have shown that the mortality from operations of this type is much lower than that following primary resections.

In cases of growths at the rectosigmoid involving the upper rectum, in which form 2.5 cm. to 3.7 cm. of the rectum above the peritoneum in the bottom of Doublas' culdesac is free and unaffected, a primary resection may be performed, if no obstruction is present, and an end-to-end anastomosis made over a tube, as has been suggested by Balfour. With obstruction, it is probably best to perform first a colostomy in the sigmoid flexure, later a resection of the growth with an end-to-end anastomosis over a tube below the colostomy, and at a later time closure of the colostomy. In like cases with involvement of the rectum to a point below the peritoneum in the bottom of Douglas' culdesac, it is best to make a colostomy, and after twelve or fourteen days remove the entire rectum, rectosigmoid and a portion of the sigmoid by porterior resection.

Although the operative procedures I have suggested require more than one operation, and necessitate the patient's longer stay in the hospital, they seem justifiable because of their greater safety.

The postoperative care of patients should be directed toward the prevention of gaseous distention and peristalsis sufficiently long after the operation to allow satisfactory healing. In my experience this is best accomplished by withholding fluids by mouth and rectum for a period of from four to six days. During this time patients are given sodium chloride solution subcutaneously in amounts from 2000 to 2500 c.c. a day. During the first thirty-six or forty-eight hours morphin sulphate in 1/6 gr. doses is administered every four hours and then, because some patients become quite irrational under the further use of morphin, codein in 1 gr. doses is substituted and continued for one or two days longer. The length of time patients are kept under this treatment depends largely on the postoperative reaction. If the temperature and pulse remain normal, patients are usually allowed to take water by mouth after four days, and the subcutaneous injections are discontinued. Water alone is continued by mouth for about two days, when fruit juices and sugars are added. If a sharp postoperative reaction occurs, the pulse is the best index as to when fluids should be allowed by mouth, and if the pulse drops and remains down, usually about the fourth, fifth or sixth day, water is given by mouth and the sodium chloride subcutaneously, discontinued. Under such treatment patients remain remarkably free from pain and gaseous distention. Its only disadvantage is the accompanying thirst which is not relieved by fluids given subcutaneously, even in large amounts, but only by stimulation of the salivary glands; without such stimulation patients are likely to develop parotitis. Relief is most satisfactorily obtained by biting sweet pickles or lemonms, and by rinsing the mouth frequently with cleansing mouth washes and orange juice. Certain patients obtain considerable satisfaction by chewing the gum prepared for diabetics. The prevention of gaseous distention and peristalsis, which is so satisfactorily accomplished by this type of treatment, is of utmost importance in attaining the greatest immediate portoperative safety.

When patients have gained sufficient strength to permit the use of X-ray, they are usually given a series of X-ray exposures over the site of the operation, and over the glands draining this area.

DISCUSSION

Dr. Max Ballin, Detroit: Cancer of the colon has become a real departure in surgery, because cancer of the colon metastasizes very slowly, due to the lymph glands of the mesentery, and there radical operation even at a late stage frequently gives lasting results. To get such lasting results two things are important: First, diagnosis and, second, therapeutic measures, as Dr. Sistrunk outlined. In the diagnosis it is necessary to operate at times before we have even an X-ray confirmation of the diagnosis. All of us have had our knocks from this if we wait for complete showing of the cancer where the symptoms are very suggestive, and these patients should have been operated earlier. The reason the X-ray sometimes fails to give a conclusive picture is because some of the cancers do not encroach early on the lumen. They may start from the frequent diverticula around the sigmoid and in those cases do not show early in radiograms. Later, as in any other surgical chapter, we should not wait for the whole syndrone of symptoms—blood in the stool, emaciation and so on, before we operate. The conclusive diagnosis often should be made with the symptoms of mild obstruction, peculiar accumulations of gas which remind one of gall-stone colics, or colic of adventitial type. Where these exist we are justified in early section and often find carcinoma of the colon where the X-ray has not confirmed the diagnosis.

In the treatment, the results have become good on account of the careful preparation, and I think many surgical features have been introduced which allow primary section, or added features which render primary healing possible. We all realize that anastomoses low down will not heal as readily as in the stomach, and for this reason colostomy will often save a case that otherwise would go on to fatal termination. Mikulicz may have saved a good many lives, even if two or three operations are needed later on, by bringing the loop outside the abdomen and letting it slough. The Mikulicz operation has not been accepted generally, as it should be. The Mikulicz operation for the low sigmoid cancers is also commendable, or a primary colostomy followed by resection later will often give good results.

Altogether, it is not advisable to be too radical at the first step. In cases of intestinal obstruction primary resection should never be considered. The great difference in the size of the bowel, the portion distal to the obstructing cancer being collapsed, makes such a resection always a failure, and primary colostomy will make this also operable after the obstruction has been overcome by this means.

Dr. Louis J. Hirschman, Detroit: It is not my intention to stress any of the points on which we all agree. Dr. Sistrunk has covered the subject admirably, and Dr. Ballin has stressed some of the points, so I will devote my time to some differences of opinion, in which I may wish some information.

Before going into the practical technic, I may say that my feeling regarding the diagnosis of cancer of the colon without the X-ray confirmation rests upon one or two symptoms. Given a patient who has recurrent indigestion with more or less retention, with a feeling of obstruction, that patient should be looked at with suspicion and all methods which we have at our command should be used to find out if it is carcinoma of the intestine or something else. These two symptoms justify the surgical examination. Then you can do a colostomy or appendicostomy or whatever you wish through your incision, and do the resection later. The symptoms of indigestion and gas, I think, are enough to warrant treating the case as suspicious. The appearance of blood, emaciation and so on are not symptoms of cancer at all. They are symptoms of metastasis. If you get the cancer early enough, before the bleeding, then there is a chance of doing something by radical surgery.

I think we all agree that the two-step, or even the three-step operations are safer than the single, radical operation .

One of the most important things is the choice of anesthetic. Oftentimes the preliminary preparation, the cleansing of the bowel, the building up, is often nullified by prolonged ether anesthesia. If we can operate under any combination of gas or ethylene, or any combination we will do more to preserve our patient's recuperative power than in any other way. This was not mentioned, but I think it is very important.

I will confine my remarks to the rectosigmoid and rectum. I admit that it is a pretty surgical procedure to excise a carcinoma of the sigmoid which comes down to within one and a half inches of the rectum but does not involve the rectum, it is pretty, but not safe, for while we know that carcinomas of the colon metastasize slowly and that the mesenteric glands in this region are not so plentiful as in other parts of the body, we know that it does spread not only upward, but downward, and I feel that one inch, or even one and a half inches is not sufficient margin for safety when excising. Therefore, I do not satisfy myself with this, but bring down and excise everything from three, four or five inches above the growth down to the anal canal, and then bring down the sigmoid and anastomose that to the canal. I think the immediate mortality is a little higher, but there is better assurance against recurrence by this means. I have seen sections of a carcinoma of the rectum where no evidence of spread could be detected, but microscopic glands three or four inches beyond have definitely shown metastases.

Another thing is the Kraske operation. I am very sorry that they have not seen fit as yet in the clinic from which Dr. Sistrunk hails to get over the Kraske operation and discard it. We see every once in a while a patient who has had a Kraske operation, but I have yet to see a patient who is happy or comfortable following this operation. I have seen some patients who have returned from the Mayo Clinic, where they have had the most competent Kraske operation that can be performed, but no one can bring down the sigmoid and anastomose it to the coccyx without having a very tender area against which the patient is forced to press when he sits in such a seat as these, for instance. I have seen patients who could not sit down because the sacrum comes in contact with such a chair. I have seen patients come in who have had this sacral colostomy with the stool entirely beyond control, and not only that, but prolapse of seven or eight inches. I think that is all wrong. If one is operating to get exposure one does not get any better exposure by the sacral than by the abdominal. There you have an excellent opportunity to see what you are doing and can immobilize the gut much better from a small anterior point than a large posterior. Moreover, why not put the colostomy where the patient can see it and keep it clean, not where he has to sit upon it. I have seen cases where the Kraske operation has been performed where the actual recurrence of the growth involved the raw surface of the sacrum. For these reasons, and many others, the fact that it is a long and bloody operation among them, I do not believe in the Kraske operation. We believe in the abdominal-perineal, the abdominal-vaginal, whether one wishes to save the sphincters or not.

In the big hospitals in London that are devoted entirely to this type of work, in one they do the perineal almost entirely, first using the inguinal colostomy. In another they do the abdominal-perineal

entirely, and in every case, or almost every case, they do a permanent colostomy. If you are doing an operation for life only the permanent colostomy is of great value. If for preservation of function, then the abdominal-perineal is the thing. In one there is 16.8 per cent mortality, and in the hospital where they do the combined operation the death percentage is 20.

Dr. Clark D. Brooks, Detroit: There are one or two points I would like to mention. First, the operability of patients. I am greatly impressed with the fact that many apparently inoperable cases, judging by blood pictures of certain types, may get well by certain types of operation. I have had patients with 40 per cent hemoglobin, absolutely inoperable if we did not know that by proper teamwork and a proper type of operation such patients can get well.

We have preferred in cancer of the transverse colon to do a preliminary anastomosis and then follow three to six weeks later with removal of the cancer. It is astonishing how, with no shock at all, the patient will have an operation for cancer of the bowel, by anastomosing the cecum to the sigmoid. A lot of these patients are turned down that should have this operation.

I was much impressed with the Mikulicz operation. These patients no longer need to die from one great big operation, and not from the three operations. No operation I know of is safer than the Mikulicz type. The first step is nothing more than exposure and bringing the bowel up. The second step is not done until the patient is in good condition, but all of them may be done by getting the patient into good condition.

In many cases cancer may be diagnosed early if the doctor will put his finger in the rectum. Many more cases would be diagnosed if a barium enema were given, for this shows in 95 per cent of cases at least a diagnosis of obstruction, with a tentative diagnosis of carcinoma. A proctoscope can be used and should be used, but is neglected every day, and patients go on suffering from carcinoma because they are not properly examined. They are often neglected until late symptoms occur.

I was much impressed with what Dr. Sistrunk said regarding operative and post-operative treatment. We have felt in every case of colonic cancer that not only should we practice the treatment which the doctors mention post-operatively, but that we should do it at the time of operation. I believe that especially during the first stage of the operation we should give the patient hypodermoclysis on the table, and we practice it. The patient gets one pint of saline during the operation and I am sure that in many instances this will save their life until the other things can be done. Without the one pint of saline and the second dose of morphin the patient often will not live for further procedure.

I wish to emphasize what Dr. Hirschmman said regarding the Kraske operation. I know it is not done much, but I think it an operation which should almost never be done, except where one is doing the perineal operation. I do not believe that anyone who has seen the sacral anus would ever want one done on himself. I believe one very seldom does a Kraske operation *per se,* but some operators may do it when they do a perineal operation, or in combination with it. I see no reason for ever having a sacral anus.

I think that many of us who are afraid to tackle these cases properly, or tackle them by the abdominal route to get at the glands and find the liver infected —I believe that many of those patients would be alive today if the surgeon would do a preliminary operation, then close the wound, put the patient up in the lithotomy position and do a proper perineal operation. Those who have seen Gant and Hirschman operate have been much surprised. Patients can have the bowels move or have control of them after an operation of this type is done. Because the surgeon has the abdomen open he often goes ahead and does another type of operation which is not proper in many cases of low rectal carcinoma.

Dr. Walter E. Sistrunk, Rochester Minn., (closing): I appreciate the discussion very much. It seems to me that in my own experience the X-ray has been accurate in probably 95 per cent of the patients who have come for diagnosis. Occasionally we see a man with a well marked carcinoma, or a palpable tumor, in which the X-ray is negative and if we feel suspicious we do not wait for the X-ray to be positive, but explore on the symptoms. I think that is perfectly right.

I made a mistake by mentioning the word "Kraske" a while ago. I did not have it in the paper, but meant by it to indicate a posterior operation. We do not do the radical Kraske any longer. We do what we call the posterior resection, which is very similar, but we do not make the sacral anus. We do a colostomy first and then a posterior resection in 95 per cent of the cases, and then take the coccyx out because it is impossible to separate the tissues from the sacrum unless this is done. Of course, some of these patients suffer afterward, but we have found that the two-stage operation, doing the colostomy and after two weeks doing the posterior resection, carries a very low mortality, not more than 2 per cent, and the percentage of cures is very high. In operation for cancer of the rectum in which an attempt is made to preserve the sphincter, we have found this very unsatisfactory. It is almost impossible to bring down extra-perineally the bowel and have no stricture later. We have also found the percentage of recurrence in these cases very high, for in order to remove the amount of tissue which one should remove it permits a recurrence so we have practically discarded this procedure. Even in the upper rectum we make no attempt to preserve the sphincter because the chance of recurrence or stricture, which later necessitates a colostomy, is not great.

ETIOLOGY AND PREVENTION OF SO-CALLED CATHETER CYSTITIS*

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The fact that the phrase "catheter cystitis" is in more or less common use in medical literature may be judged to be evidence that the catheter is still regarded as having an etiological relation to infection. As we believe that this view is in violent contradiction to all the evidence, it seems wise again to put forward the evidence in the hope that it may carry with it conviction.

That there are sound observers who, during the last decade have regarded the catheter as guilty is evidenced by the publications of Brocks, Rathbun and Mills, all of whom cling to what appears to us to be an outworn dogma.

In arriving at an opinion upon this question it is perhaps wise to set forth the conditions which appear to favor the production of blad-

*Read before Section on Surgery, M. S. M. S. Annual Meeting, Mt. Clemens, Mich., Sept., 1924.

der infection and discuss the evidence of their real effect.

THE INTRODUCTION OF BACTERIA INTO THE NORMAL BLADDER

This matter has been very fully investigated by many observers over a period of more than thirty years; in 1890 by Guyon and Albarron, in 1890 by Rovsing, in the same year by Melchior, in 1913 by Hess, in 1913 by Bauereisen, in 1915 by Barber and Draper, in 1917 by Faulds, in 1918 by David. All investigated this question experimentally and came to the conclusion that infection of the bladder cannot be produced by the simple introduction of pathogenic bacteria into the normal bladder. We have, however, thought it worth while to repeat this work and one of us, (J. L. L.) has, during the past year, conducted an elaborate series of experiments on male rabbits bearing upon this question. We are forced to the conclusion of the previous investigators that the normal bladder is not infected by the introduction of pathogenic bacteria.

It is proper here to point out that the clinical evidence is entirely in accord with the experimental. It is a matter of common clinical knowledge that the catheterization of the healthy bladder in the absence of obstruction is entirely without objectionable consequences. It is further notorious that the introduction of instruments even more likely to introduce bacteria, such as the cystoscope and the more or less prolonged manipulation associated with the cystoscope examination, is quite impotent to produce cystitis in the normal bladder. That the introduction of the catheter and particularly of larger instruments, such as the cystoscope, inevitably introduce bacteria must be clear. On this point, however, we would submit a study which one of us, (H. C.), made some years ago on the bacteriology of the bladder urine of patients with normal bladders consequent upon cystoscopy. In this study the urine was examined carefully before instrumentation and all cases showing evidence of bacteriuria were excluded. Of the remaining cases, with normal urine, examination was made of the urine two and four days following the cystoscopic examination. In all of these patients following cystoscopy the presence of bacteria in notable numbers was shown. The bacteria diminished by the fourth day and as a rule disappeared by the sixth day. In none of the cases examined was there any evidence of cystitis as a consequence of the examination.

This evidence appears to us to require the conclusion that, both experimentally and clinically, the introduction of bacteria into the bladder and even moderate traumatization of the posterior urethra and the bladder are incapable of producing cystitis.

INTRODUCTION OF BACTERIA FROM THE UPPER URINARY TRACT

In these days when the urinary tract is frequently subjected to searching examinations we see a considerable number of patients with infection of one or both kidneys with a considerable variety of bacteria in whom it is possible to decide whether or not infection of the bladder has taken place. A comprehensive discussion of this question would take us too far afield and it is sufficient to point out in this connection that the urologist meets with a large number of patients in whom infection of the kidney exists, in whom, therefore, the mucous membrane of the bladder is continually subjected to potential infection from this source, but in whom infection of the bladder (cystitis) has not occurred. In fact, it is interesting to note that the bladder mucous membrane may resist infection by bacteria constantly reaching it from the kidneys over a long period of time.

RETENTION OF URINE WITH OR WITHOUT OVER-DISTENTION OF THE BLADDER

A large amount of experimental work done in connection with the attempt to decide the condition under which infection of the bladder occurs has lead many investigators to the production of retention of urine in the course of their investigation. Those investigators, who have been previously named, have unanimously come to the conclusion that cystitis can with regularity be produced in animals by the production of retention of urine with over-distention of the bladder. Many of these observers have also noted that the intentional introduction of bacteria is by no means essential to the production of cystitis. On this point it has seemed to us wise to repeat the work of other observers and one of us, (J. L. L.), in the course of the experimental work above referred to, produced retention of urine in a series of animals and studied the results. In all the cases studied cystitis resulted and in none were bacteria intentionally introduced. It, therefore, seems quite clear that retention of urine with over-distention of the bladder can be expected in experimental cases regularly to be followed by cystitis.

This is, of course, a finding which fits closely with clinical experience. It has for years been recognized that the catheterization of the over-distended bladder, particularly where that over-distention had been produced, was followed by infection in a high percentage of cases and it is in this group that the luckless catheter has acquired its bad reputation. A more important question concerns the cases in which residual urine of moderate amount exists without over-distention. This condition is found commonly in individuals with moderate grades of urethral obstruction due generally to changes in the prostate, but occa-

sionally to stricture of the urethra. It also occurs with some frequency in women with considerable degrees of relaxation of the pelvic floor, as a rule, consequent upon damage occurring during labor. Small, though not insignificant amounts of residual urine are relatively common and it has been observed that in this group infection was particularly prone to occur.

We incline to the view that the natural history of the infection which develops in these two groups is not precisely similar.

In the cases with obstruction and over-distention the cystitis which follows upon evaculation is due to the prepared soil, the bladder wall being oedematous, soggy and having punctate or even massive hemorrhage into its substance. Here bacteria, which are always available, find a soil well suited to their growth. (For a fuller discussion of this view see The Doctrine of the Prepared Soil. Reprinted from The Canadian Medical Association Journal, September, 1921.)

In the cases without over-distention, but with residual urine there is also a prepared soil, but not so well prepared. In them we regard the residual urine as an important factor. It is to be remembered that the urine itself is a most excellent medium for the growth of bacteria and particularly of the colon bacillus group. These bladders are never entirely empty and the bacteria find there a congenial environment removed from the rush and bustle of the normal periodically-emptied bladder from which they are constantly evicted. Here they can at their leisure multiply, which they do at an astonishing rate, and work their will upon the defenseless and weakened mucous membrane of the bladder. In these cases, therefore, the clinical evidence jibes with the experimental evidence and supports the view that retention of urine with or without over-distention is a most essential factor in the production of cystitis.

GROUPS OF CASES IN WHICH SO-CALLED CATHETER CYSTITIS IS OF COMMON OCCURRENCE

The so-called catheter cystitis occurs in those groups of cases in which retention of urine with or without over-distention of the bladder has occurred. In these, catheterization is not infrequently followed by infection. We have already shown that it is the retention and not the introduction of the bacteria with the catheter which is the essential etiological factor and it, therefore, remains to discuss the management of the groups of cases in which catheterization is indicated. For convenience these cases may be divided into the three groups.

1. Those in which the retention is due to organic lesions of the bladder neck or of the urethra, or in which the floor of the bladder has, on account of damage to it's support, sagged below the level of the outlet. This group, therefore, includes the obstructing lesions of the prostate, stricture of the urethra and some cases of cystoscele in the female.

2. Those in which the mechanism of urination is disturbed by faulty enervation due to organic lesions and retention of urine results. In this group will fall the bladder disturbances of cerebrospinal syphilis, of myelitis of organic origin, of the congenital errors of development resulting in spina bifida and of the lesions of the spinal column due to trauma, tumor or tubercle.

3. The so-called reflex retention of urine commonly seen after surgical operations occasionally with severe injury.

The scope of this paper will not allow us to discuss in detail the management of cases occurring in the first two groups, since we wish chiefly to discuss the care and management of reflex retention of urine. Suffice it to say that in the cases occurring in Group 1, infection can be avoided, or when established, can only be cured by treatment of the lesions of the bladder neck, of the urethra, or of the pelvic floor. The treatment is surgical.

The group of cases occurring as the result of organic lesions of the spinal cord can as a rule not be dealt with surgically. In the great majority of cases the function of the bladder sphincter cannot be restored to normal, catheterization in the presence of residual urine becomes inevitable and infection is unavoidable. In fact, it is notoriously true that patients with organic lesions of the nervous system resulting in retention of urine die of infection of the kidney rather than of their original lesion. Did space permit we should be glad to discuss the management of the bladder in cases of fracture of the spine since it offers an interesting field for speculation as to the results of treating these bladders without catheterization, but we regard this as outside the field of the present paper.

THE MANAGEMENT OF REFLEX RETENTION OF URINE

As above stated, this is defined as that form of retention commonly seen after surgical operations, particularly those in the general neighborhood of the bladder, very commonly seen in obstetrical practice as a consequence of labor and occasionally seen with severe trauma, such as that producing fractures and particularly when associated with shock, in which no surgical operation is involved. The precise mechanism of the production of this type of retention is not entirely clear. It is, of course, due to interference with the normal functioning of the reflex arc and involves both the higher and lower nerve centers. There

is some reason to believe that in the cases occurring after surgical operation the anesthetic itself plays a part, to some extent, by affecting the secretion of the urine, and to some extent by clouding consciousness and in this way upset the normal machinery. It is, however, fairly clear that the anesthetic is not wholly responsible and the occurrence of pain which distracts attention from normal sensation is probably also a factor. It is, however, not necessary to have worked out an entirely satisfactory theory of the etiology of this condition to be entirely prepared successfully to deal with its consequences. The outstanding facts with which we are here concerned are that retention of urine does occur under these conditions and that there have been two schools of thought in regard to its management. The older school held that the catheter was primarily responsible for the results and consequently postponed its use to the latest possible moment. The other school, which is essentially the modern one, holds that the catheter is not a limb of Satan, but an innocent bystander who has been unwarrantably besmirched as to its character and accused of crimes with which it had no connection. We believe that the experimental evidence above referred to and also the clinical evidence is entirely sufficient to warrant the dogmatic statement that the catheter in and of itself is quite powerless to do damage. It is, we think, abundantly clear that it is the prepared soil resulting from retention and over-distention which is the sole causative factor. Thus the avoidance of cystitis in these cases boils itself down into the avoidance of over-distention. We feel quite willing to say, on the basis of experience which, with one of us, (H. C.), has extended now over a period of more than fifteen years, that if over-distention of the bladder be in fact avoided in these cases of reflex retention, that cystitis will not result. An exception should perhaps be made of the cases occurring in women with relaxed pelvic floor in which some residual urine has probably been existent for a long time. In these people infection may occur in the absence of over-distention if the complete emptying of the bladder with or without a catheter is not insured for a considerable period. We believe that the evidence warrants the conclusion that in this whole group of cases it is not the use of the catheter, but its avoidance which should properly be charged with the resulting infection.

On these grounds we would suggest the following plan for the management of all cases of reflex retention of urine. When occurring after surgical operation or in obstetrical practice where an anesthetic has been used, it may be assumed that urine will be secreted at a considerably slower rate than the normal. One may regard the normal urinary output of the normal individual under normal condition of temperature, whether within or without, as about one and one-half ounces per hour. In the patient who has been the subject of a surgical operation the fluid intake is as a rule below normal. In the operation itself the anesthetic will have largely checked the acticity of the kidneys during the period of the operation. The fluid intake following operation will be much below normal. Taking these factors into consideration, it is safe to assume that the normal rate of urinary output will not be reached much under eight hours. In order to avoid over-distention it is necessary to come to some agreement as to the capacity of the average bladder. Now it is notorious that the bladder capacity varies enormously with the individual, but we are concerned chiefly with the least, or minimum normal capacity, rather than with the unusually capacious bladder which was perhaps more common prior to the 18th amendment. We are probably safe in assuming that no bladder not previously diseased will become over-distended with less than 10 ounces. We have, therefore, thought it proper to lay down as a working rule for our assistants and associates that the bladder, after operation or injury, should not be allowed to fill up to a point beyond 10 ounces. On the basis of the conditions above suggested governing the secretion of urine under these conditions it is fairly safe to assume that 10 ounces of urine will not have been secreted in less than 12 hours following the beginning of the operation. Assuming, therefore, that the operation be done at 8:00 in the morning, our experience leads us to believe that it is safe to assume that the bladder will not have become distended before 8:00 in the evening. We have further come to the opinion that in the average patient a quantity of urine approximating 10 ounces will have been secreted at some time between 12 and 18 hours after operation. The period, therefore, with which we are chiefly concerned is this 6-hour period. The individuals most intimately associated with patients at this stage in their recovery, generally the nurses, will soon learn to estimate by the sensations of the patients, by their general condition and by the way in which they are taking or have received fluids the time at which the bladder is likely to contain 10 ounces. We have been in the habit for some years of instructing our nursing staff that the use of the catheter in the undistended bladder is free from objection and consequently they are urged to employ it in all patients in whom they suspect that the bladder is becoming distended during the period from 12 to 18 hours after operation. It has been our observation that acting upon these instructions our nursing colleagues have been able to empty the bladder

when it contained from 8 to 9 ounces with great regularity and in a very large series of cases managed in this way no case of infection has occurred. In contradistinction to this group we have seen in a few individuals in whom catheterization had been postponed, acting upon the older theory of the avoidance of the catheter, so that the bladder was found to contain from 12 to 16 ounces, the withdrawal of which was followed by infection which in some cases has proved troublesome.

We submit that unless it is proposed to deny all of the experimental and clinical evidence the case for the early use of the catheter is very strong. We further think that the time has arrived when those who would avoid the catheter and trust to the forces of nature to empty the bladder must assume the risk of over-distention. Should this occur cystitis will follow in a fair per cent. For these cases of cystitis we believe that the physician and not the catheter is responsible and that he who postpones what he regards as an evil day must be prepared to take the consequences and pay the price.

There is considerable evidence accumulated during the last ten years to show that the doctrine that the use of the catheter in this type of retention necessarily leads to a continuance of its use over a period of some days is not founded upon the facts. It is probably true that where the use of the catheter was postponed until over-distention and stretching of the bladder had occurred, continued use of the catheter was thereby favored, but we think it is not true that where the bladder is relieved of its contents before over-distention has taken place that the continued use of the catheter is likely to be necessary.

In closing we would particularly draw attention to the group of cases above referred to in women with a relaxed pelvic floor. In these patients it is probably true that small residuals are fairly common. In them the avoidance of infection will most certainly result from the continuance of catheterization until the general tone of the bladder, and perhaps of the patient, has returned to normal following the operation. In this group of cases it is probably safer to continue catheterization, if necessary, for many days rather than to risk the occurrence of infection in the presence of small residuals.

DISCUSSION

Dr. H. W. Plaggemeyer, Detroit: It is proverbial that when Dr. Cabot gets through there is very little left to be said, but I wish to mention one point about opening the bladder. Dr. Cabot has brought out the fact that the normal bladder is invulnerable to opening from without and without. The other types of bladder he speaks of have a derangement of circulation which is the primary factor in cases of infection. I think, as he said, the atmosphere has been very cloudy for a number of years on this subject. Distention is derangement of circulation, and that is the primary factor of infection.

I wish to qualify one thought and that is in regard to one type he spoke of in fractures of the spine during the war, and in other traumatic injuries to the spine, and in tabes and tumor. In these three types we have an absolutely atrophic picture in the bladder, and aside from tabes the picture is one and the same. We have dilatation of the posterior urethra, the verum montanum lies out in the floor of the bladder, there are large trabeoulae and the cross section of the bladder is increased four to five times. It shows muscle contractility, showing the ability to take care of the upper end of the ureter and the kidney. We have had many cases of this type with eight cases of tumor of the spine in which the picture was always the same. We must consider this type of case as a decentralized bladder. Sherrington, in his dog experiments, decentralized the bladder; in sixty-two instances he did not catheterize and in none of those dogs did he, up to six or eight days, find an infection. These findings were corroborated by other workers.

The practical point I wish to make in this connection is this: I agree with Dr. Cabot in regard to reflex distention and so on, but in these people we found at autopsy that every single one of them died of pyelonephrosis, without any exception.

The point I wish to bring out in conclusion is this: It seems to me that all these cases of spinal injury which mean a chronic atrophic bladder should be left alone. In the army every one of these men began to pass their water when they were left out in the battlefield, the last within forty hours and the earliest within twelve hours. They all established paradoxical incontinence of urine. In spasmodic incontinence try to keep the catheter out of the bladder, because you are instituting infection and they all succumb. You say they will die anyhow; that is true, but they do establish paradoxical incontinence.

I agree with Dr. Cabot and think he has given us an opportunity to be optimistic in regard to postoperative retention, but the spinal types, I will repeat, should be left alone.

Dr. W. F. Martin, Battle Creek: I have heard Dr. Cabot speak many times on this and other subjects, but I do not believe I have heard him speak so dramatically as he did this morning. He has certainly done a great deal to elucidate this subject of catheter cystitis. I am sure I was raised in the same school he was and was taught the same as he was that it was a terribly dangerous thing to use a catheter, but in our work we have found that it is much less dangerous to use a catheter systematically and regularly than to put it off until the last moment. There are many problems. Even when you practice regular catheterization in the operative cases if you make it a rule to catheterize every eight to ten hours, and with that rule you tell the nurse that if the patient's bladder becomes distended or painful, or if he has a strong desire to urinate she shall use it before the time, even then once in a while you will get an infection and in studying these cases you will find that it is usually the type of case Dr. Cabot has spoken of. Either the patient has a cystocele or a bladder neck obstruction and has suffered from obstruction for some time before this event.

We at one time started to experiment and did bacteriologic examinations in the routine way to see whether they showed any systematic evidence of infection, and we found that in the catheterization of these patients cystitis very often developed. This was not the fault of the nurses, for I know the nurses were careful. In studying these cases following the catheterization it was always proved, particularly in the women, that there was a cystocele or

something which interfered with that bladder emptying itself. In the male bladder, if you catheterize a man with a small prostate you will often get a residual, but if not, the danger is nil.

I think we have the evidence as presented by Dr. Cabot that it is not dangerous to use a catheter if it is used carefully, except in the case of certain diseases, with paralysis of the wall. In that case we have found, as he has said, that it is better to follow them up and see that the residual is not allowed to remain, that the patient's bladder is kept empty until we have established measures to increase the circulation of the bladder, and to asepticize the urinary tract as well as we can.

I would like to hear what Dr. Cabot's experience has been regarding the value of the retention catheter where patients suffer from residual, in preference to the frequent recatheterization.

It is our rule in making bladder examinations, or when we have to institute catheterization following operations, to begin treatment of the cystitis immediately. We give methylene enemas, see that the patient's feet are kept warm, and apply heat to the pelvis, treating the cystitis immediately after the catheterization has begun, and find that this lessens the tendency to the development of retention.

Dr. J. G. R. Manwaring, Flint: In those lesions of the spinal cord where the destruction is complete we have no difficulty in leaving them alone, but in those cases where it is incomplete where the motor function is disturbed we get into a good deal of trouble. They have tremendous pain, and I would like to know what Dr. Cabot would suggest in those cases. It is this particular type of case in which we meet with trouble.

Dr. William E. Keane, Detroit: I think the type of catheter we use, particularly in the prostatic case, has much to do with infection. I think the soft catheter will often slip into a prostate that otherwise is difficult to catheterize with the usual type of cather. We have many times seen cases that the doctor who has brought the case said he was unable to catheterize, and when we looked at what he was trying to use for a catheter it was easy to understand why he could not.

The use of a very weak percentage of cocain or novocain before catheterizing these patients the first time will enable one to slip the catheter in very readily and prevent trauma, which is a very important feature in the production of these infections.

Dr. Hugh Cabot, Ann Arbor, (closing): I am glad that Dr. Plaggemeyer brought out the points that he did in regard to the treatment of these paralytic bladders, for I think that is a very important and great step in advance. I think Dr. Plaggemeyer may have left you with the view that all you have to do is to leave these cases alone.

Dr. Martin has raised a very important point. You have to leave them alone, but is very hard to do. You think they are going to burst, but they do not. Why, I do not know. I went through, during the war, what might be called the development of this view which Dr. Plaggemeyer has brought out. In the early days in the British forces most of those people were catheterized, most of them up the line at the clearing station. Then an order was issued which suggested that it would be wise if the bladders in all these patients should be opened at once, so for nearly a year at all the clearing stations all these patients with transverse lesions of the cord had their bladders opened. They did just as badly. Then came the view, from a group of British neurologists, consultants to the army, that these people might be left alone. I remember they used to come to me and say, "Cabot, old man, I think they are going to burst. Will they last?" I told them that they would not burst, but it was very hard to leave them alone.

I think a section like this is the place where this doctrine should be driven home, for it is not the hospital surgeon who sees these cases first. Most of the cases I see today have been catheterized, at least nine out of ten have been catheterized, on more than one occasion.

The development of the traumatic bladder is a more certain and troublesome business. If they have been catheterized once or twice I am always inclined to send for the fellow who did it and ask him to keep on doing it. If they have never been catheterized, it is easy.

I have seen the cases to which Dr. Manwaring referred, with the incomplete spinal lesions in which the bladder will not work, but will squeal. My usual method is to treat them by cystotomy, more or less permanent. You can put in a tube and they will be more or less comfortable. I think this particular group is damaged less than by the use of the catheter. It is a very interesting group. I have often wondered if it is not best to make the lesion transverse and call it a day.

Dr. Martin alluded to the routine catheterization to be carried out after operation at eight or ten hours. I think we are concerned here with quantity of urine rather than hours, and I have been led to doubt whether the bladder has a watch in his pocket. He does not yet know when he is supposed to be full, and I have thought it wiser to keep close watch of the twenty-four hour output and advise the nurses that sudden death would occur in their family if there was more than ten ounces at a time. Of course, they will always put down nine and a half, being sure what will be the consequences. I think the catheterization of these patients every twelve hours was bad, and that we should deal with questions of amount rather than questions of time.

I am entirely in accord with Dr. Martin's view that we should deal with cystitis by beginning the treatment very early, but I am inclined to begin it earlier than that. I am reminded of the scene that occurred in the surgeon's room at the Massachusetts General Hospital when Dr. Richardson said that they should operate on every case as soon as the diagnosis was made. James Elliott said, "If you wait for the diagnosis they will die. Operate before the diagnosis is made." I think we want to begin treating the cystitis before it occurs. Treat it before operation. For years I have made it the rule in all cases that seemed likely to have reflex retention, in women particularly, to put them on urinary antiseptics and see that it comes through before operation. I am sure it is wise to assume that we may have to catheterize, that they may have some residual, and guard against this before operation. I think that will diminish the already diminishing cases.

I think the needle catheter has a distinct place, largely in that group of cases in which catheterization is necessary over long periods and in which it is objectionable. In those people you know the bladder is always empty. We always have to face a certain amount of urethritis, but so far as I know it is never important, never serious. It always disappears when the cause is removed. I have no fear of the retention catheter as a cause of permanent damage to the bladder, and would rather use it than to catheterize a patient in whom the procedure is very uncomfortable three to five times in twenty-four hours.

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OXYGEN THERAPY AND MEDICATION IN THE TREATMENT OF PNEUMONIA IN INFANCY AND CHILDHOOD*

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Pneumonia in its various forms is the most common serious disease met in pediatric practice. With all our advances in medical science, it still remains among the few diseases in which the mortality has not been appreciably affected by treatment. Laboratory investigations have not developed any specific, such as is now available fo rdiphtheria and a few other infections diseases, consequently our treatment is symptomatic. The indications are to sustain life and relieve distress until the natural course of the disease has run.

Probably the most important elements in the treatment are the general measures summed up under the headings of rest, mental as well as physical; skillful nursing; pure fresh air; proper diet; forced fluids; control of the bowels; hydrotherapy; applications; change in position and finally symptomatic treatment administered according to the indications as they arise and the patient's general condition. Death is due to exhaustion or to toxic effects in the respiratory and circulatory centers. "Clinically the battle in pneumonia resolves itself about these two systems." If there is very little cyanosis or dyspnoea and the pulse is good, volume and tension, and not too rapid, our patient is doing well; if the opposite exists, we know that the outcome is uncertain.

Assuming the above viewpoint, I wish to discuss some of the measures directed to the relief of the strain on the respiratory and cardio vascular systems, especially the early and extended use of oxygen and medication to be used to support the heart and circulation, in the belief that these measures, more carefully carried out, should have an apreciable effect upon the mortality in this serious disease.

Means and Barach state that the respiratory strain results from circumstances that the pneumonia patient is simultaneously confronted with the necessity for greater pulmonary ventilation than under normal conditions and a pulmonary bellows of reduced efficiency.

It has been shown that there is a varying degree of anoxemia almost from the beginning in pneumonia and that the relief of this condition comes directly when oxygen is administered. The skin loses its dark color, the respirations and heat become less rapid and labored. This results because of the increased amount of oxygen dissolved in the plasma.

In cases where only a small amount of blood is passed through the lungs, owing to circulatory disorders, this small supplementary supply of oxygen is important. Again when the aerating surfaces of the lungs are covered with exudate through which oxygen penetrates with difficulty to the absorbing membrane, an increased partial pressure of oxygen in the alveoli accelerates the rate of passage. Stadie believes that this impairment of the respiratory surfaces of the lungs is the principal cause of anoxemia in pneumonia, that rapid shallow breathing is less important.

Further, it must be remembered that the air actually inspired does not pass directly into the aveoli but diffuses from wider passages into narrower ones and then reaches the absorbing surfaces. Pure oxygen diffuses more rapidly and in larger quantities when it is not mixed with nitrogen, for this reason the concentration must be considerably higher than the 20 per cent to 21 per cent in air. Numerous studies have shown that there is no danger of giving too high a concentration of oxygen by clinical methods.

The importance of early administration is evident when we realize the effect of oxygen deficiency on the nerve centers and tissues develops insiduously and that once started the damage leads to a progressive determination of the vital functions of the body. The respiratory center is one of the first to suffer. The result is rapid and shallow breathing. Such breathing does not properly ventilate the alveoli so that a vicious circle is established. The defensive agencies of the body against toxins and bac-

*Read before Pediatric Section, M. S. M. S. Annual Meeting, Mount Clemens, Sept. 1924.

teria are also depressed by the anoxemia so that resistance to further progress of the disease is lessened.

For the same reasons the administration should be maintained until all signs of deficient oxidation are removed. Barach and Woodwell have proved the presence of anoxemia by careful laboratory and blood tests. The best clinical index is the color of the face. So long as there is anoxemia, this is of a characteristic pale ashen hue, different from that of ordinary capillary congestion.

MacLeod says there is no therapeutic measure that is less efficiently put into practice than the administration of oxygen and as a consequence most physicians have little faith in its value. An insufficient amount of gas is given or it is given too late.

One of the most apparent reasons why oxygen is not used more often and effectively is because no satisfactory method of administration has been developed for clinical use. The usual method of placing a funnel in front of the patient's face is of no value because the gas is not inhaled in sufficient amount or concentration. Masks are too disturbing to our patient. Respiratory cabinets have been successfully used in hospitals. It is possible that the nasal tube or bent anesthetic tube placed in the mouth are of some value, but they also are frequently disturbing and difficult to manage.

Barach and Woodwell at the Massachusetts General Boston, and more recently Roth at Battle Creek Sanitarium, have devised outfits that overcome many of the difficulties. These outfits can be purchased.

From my review of oxygen therapy, I believe the benefits to be derived from its use will overcome the difficulties of administration. Stadie says that it is assumed that anevemia in pneumonia is dangerous and that its relief might prolong life until the forces of immunity have asserted themselves. Means and Barach say that if the respiratory load could be lightened or relieved the mortality could be reduced to a low rate.

Barach and Woodwell considered it a life saver in severe pulmonary edema complicity pneumonia.

Rebadeau and Dumas, from a study of oxygen given to infants with pneumonia, say that it does not check the progress of the disease, but in cases with edema it may tide the patient over the critical period and because of the apparent relief it gave their patients, the mothers clamored for its use.

Experimental work tends to indicate that the importance of the heart in acute infectious diseases diseases has been over-estimated and that the real causes of death lie without the heart. Nevertheless, in our routine care of pneumonia the condition of the heart calls for most of our attention. Very early in this disease there is heart strain, due to high temperature and toxic effects. This is soon followed by obstruction in the pulmonary circulation which leads to dilation of the right heart. On the ability of the heart to resist this mechanical strain and the toxic effects of the disease, rests the outcome, in most instances.

In pneumonia various drugs are used to support the heart and relieve the strain. Digitalis is the drug generally accepted for this purpose.

Regarding the use of digitalis, it is important to consider when it should be given, the form most desirable, the dosage and manner of administration. It is advocated by many not to give digitalis until the signs of insufficiency appear. Brooks and Carroll and others advise its use as soon as the diagnosis is made on the ground that signs and symptoms may not appear up to the moment of failure, because of the reserve force the heart possesses, nevertheless heart strain is present from the beginning.

Giving small doses at the outset of this strain should be an advantage. This may not be necessary in the greater number of cases, but analogous to the relief of the strain produced by anoxemia, it seems reasonable to believe that supporting the circulation before it has failed should be an advantage on the ground that it is easier to sustain the heart than restore it. Other reasons for this view are that digitalis acts more efficiently upon normal heart muscle and because the clinical studies of R. L. Levy have demonstrated that the mildly digitalized heart does not dilate as readily as the undigitalized control.

It is my habit to give a fresh standardized tincture by mouth as soon as the patient shows any signs such as weak, irregular, rapid pulse or even general weakness. If the condition is not severe and there are no other complications, the simple dosage of ½ to 1 minim at one year of age, 1 to 2 minims from two to three years, 2 to 3 minims from three to five years, three times daily is prescribed. If the condition is more urgent when first seen, twice this amount is given every two hours until the pulse becomes full, the muscle sounds and apex strong. If the heart appears compitent, the dose is then reduced to three times daily.

Formerly there was much uncertainty about our digitalis preparations, but at present there are a number of standardized products either in the form of tinctures or

tablets of the powdered leaves which are standardized to represent in potency a certain amount of tincture. Neither the infusing nor the fluid extract should be used because the dosage is uncertain.

We should remember that the tinctures deteriorate rapidly in watery solution. Not infrequently I have seen pneumonia patients receiving digitalis in a watery mixture with other drugs. It is best to order undiluted tincture with direction to give the dose in a small amount of water.

By administering small doses of digitalis early in the disease, the patient is partially digitalized so that if the need arises, sufficiently rapid effect can be obtained by continuing mouth administration in more frequent and larger doses. With this simple method, I cannot remember a single case of pneumonia that I cared for from the beginning, in which quick digitalis action became necessary, and for this reason I have preferred to control the dosage by digitalis effect rather than fixed rules for maximum massive dose.

Very rarely in pneumonia, a child becomes weak, dyspnoeic and cyanotic, the jugular veins are engorged and the second pulmonic sound is faint, indicating acute dilation of the right heart. Under these circumstances, conditions are urgent and quick digitalis action is required.

Recent studies show that one maximum dose by mouth may produce its effect in two hours, and therefore, intravenous administration should not be resorted to except when quicker action seems necessary. Under such circumstances it is advised to use ouabain in hard glass ampules intramuscularly or crystaline gratis strophanthin hypodermic tablets to be dissolved in sterile physiological salt solution and injected intravenously or intramuscularly.

It is important to know how much digitalis has already been taken and have a more accurate dosage.

Eggleston's method of dosage is the one usually preferred but the simple rule of Pardee of 2 minims of tincture per pound of body weight, of which never more than one-half this amount should be given at a single massive dose, approximates the Eggleston method and is much easier to remember. Small children require relatively larger doses than adults.

The indications of adequate digitalization consist in nausea and vomiting. With little children it is best to stop before this point is reached.

It is not my desire to imply that digitalis should be used in every case of broncho or lobar pneumonia, but in many complicated cases and with deligate or malnutrition infants, I believe that early administration will aid in relieving the strain and the outcome will be more favorable.

Besides digitalis, there are a number of other drugs which are employed as heart and respiratory stimulants in pneumonia. Most of them are direct stimulants of the central nervous system, and as a result of the restlessness and excitement they produce, may be absolutely harmful.

Adrenalin chlorid is an exception in this regard. When there is a small thready pulse, indicating collapse with fall in blood pressure, I have found adrenalin very useful. It may be given subcutaneously, but probably is best given intravenously in physiological salt or glucose solution. It should be given slowly and only in emergencies as over-dosage may cause pulmonary edema.

During my hospital days, strychnia was the drug most frequently used as an emergency stimulant. It acts on the central nervous system and so stimulates the respiratory center, consequently may increase coughing. On this account, and because of the nervous irritability and excitement it induces, there are other drugs of this type to be preferred. I cannot now remember a case of pneumonia in which I prescribed strychnia.

Camphor in oil, I have used very often as an emergency stimulant. Marvin and Soper from clinical study, conclude that camphor has no demonstrable action on the circulation in congestive heart failure. Cushing states that camphor is of no value even in the largest doses.

Caffein Sodio-benzoate I have frequently used for its temporary stimulating effect. I prefer it to strychnia or camphor in severely depressed toxic patients, but when there is excitement or restlessness, I do not use it.

Atropine sulphate is of considerable use in pneumonia. It is the best respiratory stimulant in collapse and also of benefit when there is a large amount of secretion in the lungs. Flushing of the face is an indication for suspending this remedy or decreasing the dose. I have never had occasion to use it to counteract the effects of over-dosage with digitalis.

Morphine and codein are not stimulants but sedatives. By many the administration is not considered safe for little children, but in the early stages of pneumonia where there is a distressing dry cough or when pain is not relieved by other methods, I have found morphine or codein decidedly useful. They decrease the restlessness and emotional irritability, promote sleep and relieve distress and pain, and in this way relieve the respir-

atory and cardiac strain. I have never seen any but favorable effects when used early. Later in the course of the disease when there is any danger of pulmonary edema, morphine is contra-indicated.

General measures, such as rest, efficient nursing, proper diet, water, bowel control are most important in the care of our pneumonia patients. These methods and the treatment of various symptoms and complications have not been discussed because of a desire to emphasize the importance of oxygen therapy and support of the heart and circulation by medicinal measures as aids in tiding our patients through the critical period until the disease has run its course. It is my belief that if oxygen therapy and medicinal heart support is effectively carried out in conjunction with the general measures, that the mortality could be reduced to a low rate in this serious disease.

DISCUSSION

Chairman Larned: There ought to be a very generous discussion on this subject. It is a thing of interest to all of us. Dr. Roth is here with us, I am very glad to say, and he has his oxygen apparatus here. I will ask him to demonstrate that as the beginning of the discussion, and then questions can be asked relative to it.

Dr. Roth: I am indebted to Dr. Rowland for the privilege of showing this apparatus over here (indicating). I enjoyed his paper very much. It certainly covers the subject very fully. He has discussed the therapeutic measures covering the most important conditions that are met with. In pneumonia and other conditions where anoxemia is present we must understand that there are two dangerous things that have to be fought and dealt with in the beginning, that is, not only the anoxemia, but the acidosis. They most always are co-incident, and sometimes the symptoms of one lead to the cause of the other condition. The rapid breathing is not due to the anoxemia generally. It may be temporarily, but not regularly. If, in spite of oxygen therapy the breathing is not relieved, don't think that it is because the treatment is not having its effect, but it is due to the co-incident acidosis, which must be adequately relieved by some other means. You must remember that you cannot always go by the symptoms of respiration to be assured as to whether the treatment is having any effect or not.

Again, I want to emphasize the fact that the treatment to relieve anoxemia should be begun early, because the effects which are obtained resulting from the anoxemia are not easily relieved; they persist even long after the treatment has done all that it can do. There are deep seated injuries in the central nervous system and in the musculature of the heart, and it takes time for those things to be remedied, if they can at all be remedied. Some cases are treated so late that any amount of oxygen and most careful treatment will avail nothing at all, and the patient is doomed to die. Therefore, it is difficult to tell early or soon as to what really is the advantage of oxygen therapy, although I believe that there are statistics that will help us to determine that particular point, in the indication that the mortality has been lowered. When the treatment is begun early they say, "Well, the patient would have gotten well, anyway."

The administration of oxygen is nothing new, and I am not going to cover the whole subject in the time that is allowed. Therefore, I am going to limit myself to this type of apparatus that I have here (indicating). The object is to do away with the chambers where the patient and the nurse have to live in, or where the patient and the nurse have to live in a room which is supplied with the proper amount of oxygen that entails a lot of mechanical fixtures and quite an expensive outfit. We have also tried to eliminate this expense by the use of a tent which has been suggested, and we also do not use a covering for the entire patient. With children that is not so important, but with the grown individual it makes quite a difference. Any apparatus or contrivance which encloses the entire patient, of course, makes it more difficult for the patient to be taken care of, and in that respect from the experience we have had with this apparatus I am sure that confining the head of a patient only is far to be preferred. It obviates the necessity also of putting a mask on the patient or using the various contrivances about the nose for the administration of oxygen.

Let's remember that when oxygen is needed, give oxygen, no matter whether you have an apparatus or not. It is better to give it imperfectly than not at all. You may have to waste it, but it is better to save a life by wasting oxygen than to not use it at all. There is one advantage in an apparatus of this kind in that it makes the administration of oxygen not very costly. A tank of oxygen will last quite a while, and in continuous operation it will last from 12 to 24 hours. With children it will last longer than that.

Right here let me call your attention to the suggestion that has been made before this meeting as to whether this apparatus could be applied to more than one child at a time. There is no reason why that should not be. The apparatus or motor and pump which is used to circulate the air through the apparatus is ample to supply the needs, not only of a grown man, but of probably two, and it could be increased by increasing the speed of the motor.

Now, to come to the apparatus again, you see it consists of a tank—of course, you understand this was particularly designed for an adult, but you can adapt this to a child. Now, we haven't the child here, but you can very easily see how this could be placed on the bed (indicating). The height of the tent can be regulated, and in this case we will lower it—not as low as we can get it—in this case it is not low enough. This should be hanging a little (indicating), also, so that the head of the child will be about where my fist is. This tube here is perforated, and is for the purpose of taking from the tent the expired air. The air in this way is more or less re-breathed. I mention this because the question sometimes comes up, isn't it better to allow it to accumulate in order to increase the stimulation of the respiration. It is easy to stimulate. When you have pneumonia the thing is to have a sufficient amount of oxygen to breathe, and the respiration is not, under usual conditions, altered at all. When there is no air, and air hunger is the result from lack of oxygen, you can administer that easily, but we cannot take the time to do that now.

The disturbance to respiration is not due to the accumulation of CO_2 in the lungs, because that is easily relieved by increasing the breathing, so that it is immaterial as to whether we withdraw all the air or ventilate it very effectively. The fact of the matter is that the removal of CO_2 would be more beneficial than harmful. The air is withdrawn through this tube (indicating), and then we can trace it to the pump and from the pump it passes through here (indicating), and between the pump

and the tent is a little muffler, which is intended to obviate the noises. Then the air passes into this receptacle here which is filled with lime for the purpose of removing the carbon dioxid, and it will remove all of it, too. In time, of course, it will become insufficient and an amount of the CO_2 will pass off. That can easily be determined by withdrawing the air through this pet cock (indicating).Then it passes into a small bottle like this (indicating), containing a little lime water. If, after passing the air through there for a short time, say, a half a minute, the liquid remains clear, then the lime is sufficient. If it becomes milky it simply means that the lime is going away on account of the fact that the air is being withdrawn from a point beyond. It is not necessary to make this test until it has been used for a certain number of hours. That should be more or less up to the nurse as to how long it has been in function. However, it is good once in a while to make the test to make sure that the lime is not altogether too weak, and insufficient. The air then passes from the bottom of the tank across into this receptacle here, which is a tank containing a double copper coil through which the air passes. This tank is to be filled with ice and water, not merely ice, because if you simply put ice in there the heating of the coil by the air will simply melt the ice next to the coil and there will be an air space between the ice and the coil and the refrigeration will be very ineffective. It must be ice water; keep a liberal supply of ice in the tank and the coil always well covered. The whole thing is properly insulated, so as to make the consumption of ice very slight, and the ice will last 24 hours and sometimes more, depending, of course, on how rapidly it is used and the season of the year.

You might ask, why should we refrigerate the air? Simply because if the patient is under the tent any length of time and rebreathing the air the temperature of the tank will begin to rise, and the patient will be very uncomfortable; he will be too hot and will perspire, and it is for that purpose that we had to come to the refrigeration of the air. In using this in hot summer time on days with a temperature of 90, 92 and 93, under those conditions it is possible to maintain the air in the tank several degrees lower than the temperature of the room.

I am not going to discuss here the value of breathing cold air. You have all heard about that. It has been accepted, and it has been criticised very much, and I am satisfied that the criticism of cold air is chiefly due to the fact that the patient has been exposed generally to the air too much. The breathing of cold air, I believe, is always beneficial, and in this way it will make it possible for the patient to breathe cool air, which is a tonic. There is no question about that. It will increase the comfort of the patient very much, also, and I believe it will relieve the nervousness and other symptoms, in addition to the added consumption of oxygen.

The air then passes through this tube (indicating). Perhaps you can see it better this way. On the way to the tank the air is mingled with the oxygen. The oxygen is obtained from the tank practically with a reducing valve by means of which the flow of the oxygen is controlled. The oxygen is admitted through this flow-meter, a very simple contrivance. You will notice that the water stands up to a certain level. The proper level is indicated by that ring (indicating), in the tube. It should be in contact with the ring. It doesn't matter whether it is down below or above. As long as it is about where it is the level of the water is all right.

This (indicating), has to do with the proper regulation of the flow of oxygen. The tube is perforated; there are a number of perforations also down at the bottom, and you see the oxygen will flow from the bottom also.

Now, the question is, how much will you give? That depends on how serious a case it is you have to deal with. If the anoxemia is severe you will have to increase the oxygen within certain limits. There is no danger of giving too much. It is very difficult to give more than 75 per cent, anyway, and it is only when you prolong the administration of oxygen at 80 per cent or more that in time it may be injurious. There is no danger; you couldn't even do it with this apparatus without flooding the tank and spending or wasting a tank of oxygen in a short length of time. Now, the average amount is between 3 and 4 liters per minute. This is determined by having 3 and 4 holes flowing. With one hole flowing you get 1 liter, two holes, 2 lighters, three holes, 3 liters, four holes, 4 liters, five holes, 5 liters. However, you will not be called upon to give more than 4 or 5 liters per minute, and I should state here that when 3 holes are flowing, the amount or percentage of oxygen in the tent when the tent is properly in place and in front of the patient—it is as hermetically sealed as possible, it is not going to be absolutely sealed—the amount of oxygen in the tent under those conditions, with the average individual, a man, will be 20 per cent with two holes; 30 per cent with three holes; 40 per cent with four holes. This is calibrated. Thirty and forty per cent is the average amount of oxygen which is required in severe cases of anoxemia.

The air is introduced at the top of the tent, and the temperature of the tent can be watched by means of this thermometer here (indicating). I want to call your attention to the drain cock here (indicating), which is for the purpose of draining the tank when necessary, and more important than that is another drain cock down here (indicating). This drain cock is for the purpose of removing the moisture or condensation which, of course, will accumulate. The air should be moist, of course. It is not desirable and we do not want to have perfectly dry air to be rebreathed. That air, of course, passes through the cooler, and some of the moisture will condense, but not very much. That is the reason it has to be drained every little while, say, possibly once in two or three or four or five hours.

That is all that I think will be necessary to discuss. I will be glad to answer any questions that you might wish to ask. I would like to have this thing turned on so you can see how it works. (Starts machine operating). That is not very satisfactory. There is something wrong. Maybe the current here is alternaing current. I have not investigated to see. However, it is practically noiseless in its operation. It is not running as it should.

I thank you for your attention (applause).

Chairman Larned: Dr. Rowland's paper is now open for discussion. Dr. Rowland has covered this ground so very well that I feel there is very little to be added to what he has already said. Is there anything more, Dr. Rowland, that you wanted to add.

Dr. Rowland: Well, I want to express my appreciation to Dr. Roth for bringing this apparatus here. I feel sure it has been of considerable interest to me, and also to many of you. In mentioning the factors in regard to the anoxemia in the beginning he mentioned acidosis. Personally I have never felt that acidosis was much of a factor in pneumonia or anoxemia, and I have never felt that anoxemia was much of a factor in pneumonia, anyway. This may be because we have all been so thoroughly imbued with the method that we think best. I base this opinion pretty much on the theory so beautifully described by Dr. Merriatt in regard to hydremia, and

if hydremia does not develop, acidosis does not develop.

I think that the main factors in pneumonia, as I have already stated, are due to the disturbed ventilation, due to the decreased surfaces in the lungs, and partly to the rapid breathing. The heart, also, is a factor. The disturbance of the circulation is also a direct factor in producing the anoxemia.

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SINUSITIS A REASON FOR APPARENT FAILURE FOLLOWING REMOVAL OF TONSILS AND ADENOIDS IN CHILDREN*

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For many years tonsillectomy and adenoidectomy in children have been considered a sort of cure-all or last resort procedure whenever one was undecided what was best. Most children show general improvement following removal of tonsils and adenoids, and so we can truthfully say that at least some benefit is derived therefrom. Perhaps one of the most common conditions for which the tonsil and adenoid operation is performed is the chronic "head cold" in children. It is in this condition that we hear so many deplore the tonsil and adenoid operation as a failure; the parents complain that the operation was useless and that the child still suffers from head colds. To be sure, there are some children whose general reaction to cold weather predisposes to colds, but in the light of more recent study and investigation we are coming to realize that the reason many are not cured of their head colds, or bronchitis, by tonsillectomy is because of the existence of paranasal sinusitis which was never recognized and probably never suspected.

The general idea that children do not possess nasal sinuses is pardonable when we note that in our texts on anatomy and in college instruction little or no emphasis is placed on their existence. We have been under the impression that sinusitis should not be suspected until a child is ten or twelve years of age, while as a matter of fact, I have observed the condition in infants as young as six months.

According to Abt, the ethmoids and maxillary sinuses appear as early as the third or fourth month. The antrum is a well developed cavity at birth with the floor situated high in the maxilla. The ethmoids show well developed cells at the sixth month of fetal life. The frontal sinuses do not develop quite as early, but in some cases they are rather well defined at one year of age, and in most cases at four years. The sphenoids also are present at the end of the first year.

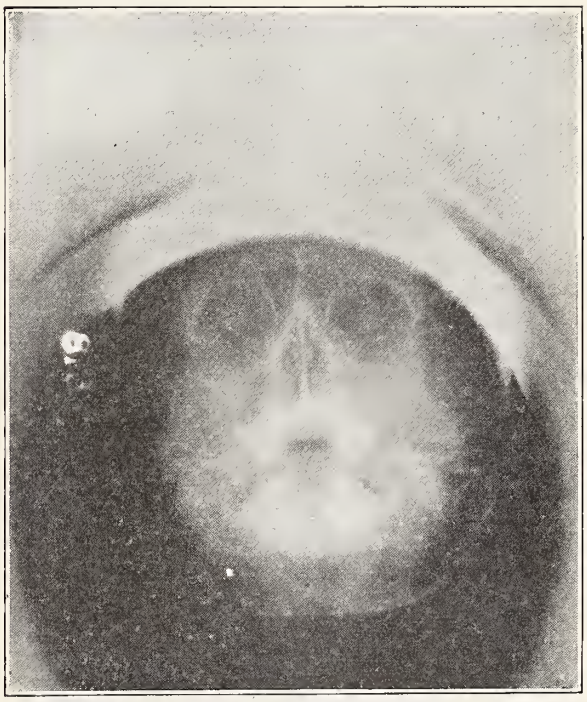

FIG. 1.
Six-year-old boy. Antrums well developed, cloudy on left. Pus found on operation

Now the existence of sinuses has been demonstrated, we have every reason to expect them to become infected. The infection starts as tonsillitis and pharyngitis, or just as pharyngitis and a head cold. The enlarged adenoids interfere with ventilation and drainage of the nasal chamber and the mucous membrane lining the sinuses becomes involved. As the infection in the adenoids and pharynx subsides, the nose becomes more free and the majority of children recover. In a certain percentage of cases, the child does not improve, but presents the symptoms and signs of a chronic head cold.

The acute attack is accompanied by the usual signs and symptoms of any acute in-

*Read before Section on Ophthalmology and Oto-Laryngology, M. S. M. S., Mount Clemens, 1924.

fection; that is, fever, general malaise, and so forth. The acute manifestations, with purulent nasal discharge, have usually subsided in a few days. I doubt, however, that the mucous membrane lining the sinuses ever returns to normal; in other words, I believe that a mild type of infection persists only to flare up subsequently when anything lowers the general resistance of the patient.

The most common manifestation of chronic sinusitis is the mucopurulent discharge from the nose. It may be associated with vestibulitis and even excoriation of the nares. The child is treated as if he had a head cold and is given all forms of expectorants and sedative cough cures, with the usual disappointing results.

It may be seen from the above description that a tonsillectomy would not drain the antrum nor do away with the symptoms resulting from infection, and naturally tonsillectomy and adenoidectomy would fall into ill repute as far as this type of case is concerned.

The patient may also develop signs of focal infection, such as chorea, arthritis, and iritis. In subsequent life the beginning of a condition resulting in nasal polyps, asthma, and possibly hay-fever may be attributed to sinus infection in early life.

A few children who have come under my care were brought in because of slight rise in temperature and an unexplained irritable disposition. When these children became afebrile their dispositions changed and they were transformed from peevish, whining, to happy children. I have no doubt that many restless, fretful children are punished and disciplined when their irritability is actually due to a low grade sinus infection.

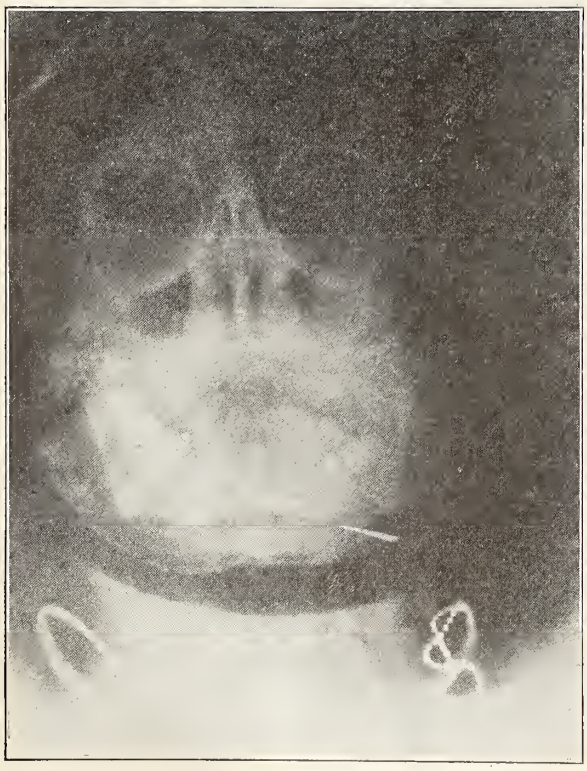

FIG. 2.
Five-year-old girl. Antrums, ethmoids and frontals well developed

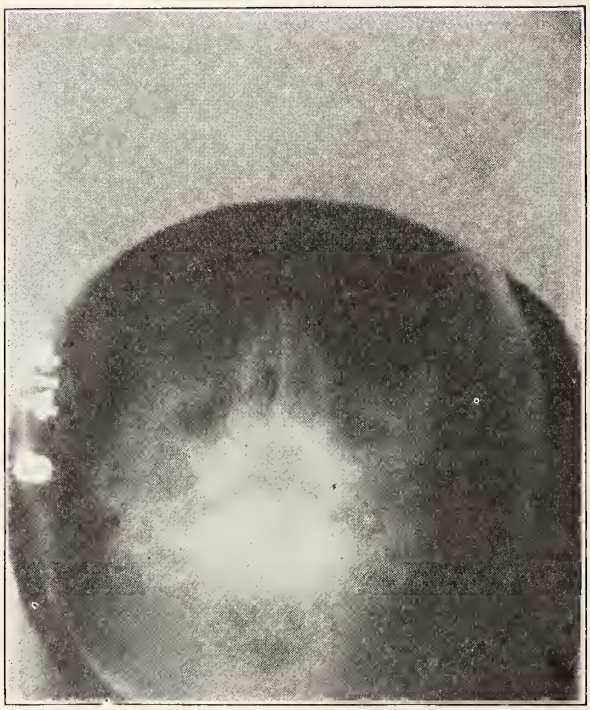

FIG. 3.
Six-year-old girl. Sinuses well developed

The diagnosis is not difficult and may readily be reached by the history, the discharge of pus or excessive mucus from the nose, vestibulitis, cough, and, last, but not least, by the X-ray. The X-ray is indispensable in these cases. A stereoscopic plate is advisable, but if it cannot be obtained, anteroposterior and profile plates should be taken. In some cases a flat plate will be misleading, as unerupted teeth may produce relative differences of density.

The treatment of acute cases of sinusitis is simple. Steam inhalations with tincture of benzoin compound and the instillation of 10 per cent argyrol or 1 per cent mercurochrome shrink the mucous membrane and allow for escape of the pent up pus. In my experience, chronic sinusitis does not yield to such measures. The removal of tonsils and adenoids allows for some ventilation and should be done to eliminate these parts as irritative factors. The sinus itself must be drained.

Under general, gas, or ether anesthesia at the time the tonsil and adenoid operation is performed, or under anesthesia for the sinus alone, the antrum is punctured under the inferior turbinate. It is to be remembered

that the floor of the antrum is situated high in the maxilla, and care must be taken to avoid injury to the dental buds. In many cases the opening with a punch is all that is necessary. In a week or ten days the nose becomes dry and the symptoms disappear. In a few cases, it may be necessary to follow this treatment by irrigation with normal saline solution.

I have been criticised for inflating the antrum gently while the patient was anesthetized, but as yet I have seen no untoward results. Bear in mind that my inflation is gentle and the cannula used has a smaller neck than the head of the trochar, consequently there is no pressure. Dean passes a cannula into the sinus and then, by inserting a long luer syringe needle through the cannula, aspirates pus. This procedure is followed by instillation of argyrol solution.

In a few cases the ethmoids may also have to be opened, but this procedure should be reserved for cases in which the X-ray shows involvement of those sinuses.

REPORT OF CASES

Case 1. A girl five years old was brought to the Jackson Clinic with a complaint of frequent head colds, cough, and excessive amount of mucus in nose. She had had the usual exanthems and the mother stated that since the age of two and one-half years she had been the victim of repeated head colds. From the time inclement weather was established in the fall until well along in the spring the girl was either just recovering from, or developing a head cold. The tonsils and adenoids had been removed at the age of four with no change in the symptoms. In the past, there had been bronchitis enough to alarm the parents, who, of course, assume that "all persistent coughs of this type might lead to consumption." Also in the past year the child had used from one to three handkerchiefs daily and could at almost any time blow large quantities of mucus from the nasal chambers. At irregular intervals irritation, redness of the nose and some herpes would develop. This had been diagnosed as eczema, the cough was diagnosed as bronchitis and the nasal discharge was tabulated as catarrh. The three conditions thus diagnosed were treated symptomatically. No one had suggested and I doubt that anyone even suspected the possible existence of sinus infection. The X-ray showed both antrums cloudy.

A window was made in the antrum under the inferior turbinate, as described above, and within one week the patient had improved. There was almost no nasal discharge and the cough had become periodic instead of constant. Two months later the mother reported that the child had been perfectly well except for one head cold following exposure to severe rain with subsequent chilling.

Case 2. A boy, six years old, was brought to the Clinic because of nasal discharge following an attack of measles at the age of three years. The tonsils and adenoids had been removed at the age of four with no benefit. The patient continued to have the so-called catarrh and considerable cough. The parents were very much disgusted with the tonsil and adenoid operation and were not at all kindly disposed to the medical profession.

After an X-ray plate revealed definite sinus infection, the left antrum was opened, and within two weeks the child had greatly improved.

Case 3. A child, nineteen months old, was brought to me because of excessive mucous discharge from the nose and excoriation about the vestibule. The X-ray plate showed cloudy, but well defined antrums which were opened; there was subsequent symptomatic improvement on the part of the child.

CONCLUSIONS

The tonsil and adenoid operation is not the only method of procedure in the so-called chronic cold in children. There are well developed sinuses in children which are prone to be infected. Every case of a persistent cold, or so-called catarrh, in children warrants investigation from the point of view of sinusitis. Medical measures are of little value in sinusitis. Surgical drainage is the most rational procedure.

DISCUSSION

Dr. J. S. Wendel, Detroit: As Dr. Barlow gives his findings we are apt to get the idea that this is rather easy and that we all ought to be able to do it the first time satisfactorily; but I think those of us who have tried it will recall that it is not as easy as it seems. That is, the getting of X-ray plates such as Dr. Barlow has shown is not an easy matter. The subjects are young children who are always more or less troublesome when they are brought around an X-ray machine, especially if they have ever had anything done to them surgically. So I think Dr. Barlow and the other pioneers in this work—Dean of Iowa City and Arbuckle of St. Louis—are to be congratulated upon their perseverance in this work, in spite of the fact that members of our specialty and also pediatricians have at times pooh-poohed the idea of this being a very important subject. That, however, is something that pioneers in any line of work are compelled to meet. If we have had the impression that sinuses did not exist in young children anatomically, I think that this idea has been dispelled by the plates that Dr. Barlow has shown here this morning. The presence of the sinuses being admitted, the conclusion that Dr. Barlow arrives at that these sinuses sooner or later become infected, is very good.

There is the question of the way these cases should be treated. So far, I think the usual method of treatment has been local, not surgical interference. Dr. Barlow has said this is all right in acute cases. We, perhaps, have been a little loathe to take up the surgical treatment of sinuses in children because of the results that have been reported—the spreading of the infection from the sinuses to the orbit, to the nasal pharynx, and to the ear, and I think we are all relieved somewhat to have Dr. Barlow tell us that these dangers have perhaps been a little exaggerated, and that if the work is done carefully, the patient having been examined by the X-ray previously to get a correct idea of the size and position of the sinuses, and if we realize that we are dealing with rather tender structures, that the sinuses of children can be attacked vigorously enough surgically to get a good result. I think we must bear in mind, however, that there is a certain danger in attacking the sinus of children surgically, and that if it is done indiscriminately without proper examination, we are liable to get a set-back in some of our first

attempts. Dr. Barlow has said it does not need a radical operation, and I think that is a good point. It is a question of getting drainage.

I certainly would not attempt to criticize the paper, having done very little compared with the work of Dr. Barlow, but it seems that so far we cannot arrive at definite conclusions. I have had the opportunity to follow some of these cases for a time and I have found that at least some of the cases that we have considered chronic, that is, where acute symptoms seem to have subsided, have responded to this treatment: that is, shrinking the nasal mucous membrane and giving the sinuses an opportunity to open and drain. The symptoms would subside for a time, but I have noticed that the following year some patients would come back with an acute flare-up. The question comes to me whether, if these patients were treated surgically, we could assure the parents that the child would not have to come back next winter with another attack. We have to weigh the relative benefits obtained by treatment, and those obtained surgically. Surgically would really seem to be the more logical, as it provides an avenue for pus to escape. I think all of us, as we have listened to Dr. Barlow, can think of a half dozen or more cases in our practice that could be put in this category of chronic sinus condition in children, and it is up to us to try to do something to corroborate the work that Dr. Barlow and others have done or to disprove it.

It seems to me another point to emphasize is to make as complete a diagnosis as possible before you make exaggerated statements and promises to your patient, and before you begin treatment. The patient then will not be dissatisfied with the operation and will think a great deal more of the medical profession. In doing this work it seems to me we should co-operate with the pediatricians, as they see these cases first. Then we ear, nose and throat men should keep our eyes open and take care of these patients properly when they are sent to us.

Dr. Louis W. Toles, Lansing: This perhaps opens a new field, and yet an old one. It simply proves the contention that an infection in children is no different from an infection in the adult, and that whether it be a subperitoneal abscess or an abscess of the antrum, the general principle of drainage applies. This simply is a paper along the lines of treating this condition the same as in the adult, and the principle is absolutely correct.

Dr. Howard W. Peirce, Detroit: I think, first of all, that we have been misled by our anatomists in not expecting to find such wide development of the sinuses in young children as we do find. Another reason is that we so often do a tonsil and adenoid operation on children at the suggestion of the family physician and pediatrician without a complete examination of the child before operation.

Two or three points brought out by the doctor would help us in our diagnosis if we would look at these children beforehand. A purulent discharge from the nose, crusts and exfoliation, usually do not come from adenoid tissue. Nor does a bilateral pharyngitis with a purulent discharge usually come from adenoid tissue, although it may. I think we should take great care in looking over these children as we look over adults before tonsillectomy. They should have complete nose examination, including as much of an examination of the sinuses as possible.

I think here, in spite of the talk to the contrary, that our transillumination does do some good. The child will submit to transillumination readily, and it gives us an idea whether that child should have an X-ray. You can transillumine practically every child. In private practice you cannot X-ray every child that comes to you for tonsillectomy.

As to the treatment, I think it depends a little upon whether we discover that the child has a sinus condition before tonsillectomy or after. If we discover that the child has maxillary sinus infection before tonsillectomy, then we should do, with the tonsillectomy, a puncture for drainage, and my limited experience has shown that it is better to make a small punch opening into the antrum rather than to irrigate it afterwards. If, however, we or someone else has done a tonsellectomy previous to the discovery of the sinus condition, a great many of these children, I think, can be cured by the treatment method, or at least relieved of their symptoms. Then inhalation or instillation will, if the case is not a bad one, clear it up.

Dr. H. Lee Simpson, Detroit: I do not think a more important thing comes within our field at the present time than this one that Dr. Barlow has brought up, because in this lake belt we are so frequently called upon to deal with it.

From an anatomical standpoint I have been much impressed by the work of Shaffer of Philadelphia, whose records show that he has never found a specimen in which the ethmoid cells were not relatively well developed at birth. He has found almost any other sinus absent, or showing simply a vestige of their presence, but the ethmoid labyrinth is the one that is always present and to be dealt with. Granting in those cases that come to us, whether we have discovered it by direct examination or by X-ray of by a combination of all, that the discharge persists, I thing most of us in the last few years, certainly since the work of Dean in Iowa City, have been inclined to tell the parents of these children that we are operating for removal of tonsils and adenoids because of persistent discharge, that the operation depends upon what is found in the nose, and that there is a liability that 20 to 25 per cent of these children will not be cured. That seems to be true. I do not think that is true as we do it in Detroit, but I think it is practically true in the whole lake region. It is a different proposition in this region from any other part of the country not affected by climatic conditions, but yet from the point of view that we are peculiarly located, we have a greater responsibility in the handling of these patients, and in that line we have had a rather interesting experience. It is not much of anything, but I have confidence that it does contribute to the care of these patients.

We all know that in the present day we are super-heating our houses, our school-rooms, our public offices, private offices, churches, etc. In the matter of moisture content in the various places where children have to be, we must recognize that they are living in too dry an atmosphere. I have demonstrated this in some homes where I have been able to get the intelligent co-operation of the parents (in most cases the fathers were engineers and knew something about these matters) to see that more moisture is provided in the house. If the windows are frost-covered in the winter time the modern American housewife thinks it is a sign of bad housekeeping, but I have found in those homes where they keep the temperature not too high, not above 70, and 68 is better, that when the family becomes accustomed to it they go through the winter in much better shape in this climate than they ever have done before.

As to the Holmes pharyngoscope, I have never been able to make any use of it. The edge of the Eustachian tube looks out of proportion.

Dr. Paul R. Urmston, Bay City: There is one question I would like to ask. In a chronic antrum that does not clear up after ventilation and drainage, where it seems that saline irrigation is indicated, I would like to ask Dr. Barlow his experience—whether that is a matter that would require a general anaesthetic, or if he is usually able to handle the patient by other means?

Dr. B. N. Colver, Battle Creek: The point Dr. Simpson mentioned about the air in our houses in winter time I am sure is true. I do not know of anything more irritating than inside air and more likely to cause colds.

We have heard a discussion of the treatment, surgical or local, but the point I wish to mention is the general treatment of the child. When Dr. McCollum was at our place last winter he talked about the animals that had been carried on a too-low vitamin B diet, and he said that at post-mortem every one of these rats showed an upper respiratory pathology. Later, Dr. Stucky of Lexington told about the clinical studies they have made in the mountain-locked counties of Kentucky, where, for economic reasons, the people sell their dairy products and eggs to get enough money for tobacco and calico, living largely on a farinaceous and sugar diet. He has found a tremendous amount of upper respiratory trouble in children that was rapidly relieved by taking them into a hospital or clinic where they are given eggs and milk and cream.

In this connection, Dr. McCollum urges the use of codliver oil, not the so-called emulsions, which really contain about one-tenth of the vitamin content of the pure oil. Dean in his work with children has observed the same thing, and his great plea is to get them into the hospital, not for surgical or local treatment, but so that the diet of the growing child may be taken into consideration.

One question I would like to ask. I would like Dr. Barlow to discuss a little more the cases where the trouble is in the ethmoid.

Dr. Carl G. Wencke, Battle Creek: One very simple thing which has helped me in the handling of children with upper respiratory trouble is the question of wetting the hair before combing it. Very frequently when a boy is sent by his mother to clean up for dinner he wets his hair, grabs a comb and slicks it this way and that, and the result is that his head is kept damp, which aggravates any trouble there may be in the upper respiratory tract. I have frequently found that where other treatments have failed, just the question of having these children comb their hair dry has done away with a great deal of the condition of nose and throat.

Dr. George L. Renaud, Detroit: I wish to mention the warning of patients that the taking out of adenoids and tonsils will not cure their trouble. I believe we ought to go farther than that. If the man who does the tonsil operation knows how to operate, there would be much less trouble with the sinuses. I realize I am out of order, speaking to you men, but it is a question that appeals tremendously to me.

Dr. Roy A. Barlow (closing): Simple surgery and drainage seems to work better in children than in adults. Whether their recuperative powers are better and they come back more rapidly, I do not know, but certainly they do improve under simple drainage quite satisfactorily and in most cases that is sufficient.

Answering the question in regard to repeated punctures, as I stated, frequently it is necessary to give the second or third anaesthetic and puncture. I do not hesitate to do it. Some men claim they can follow the treatment by inflating without an anesthetic, but I may say frankly that my hypnotic powers are not sufficient to control a small child while inflating its nose without an anesthetic.

Dr. Wendel's point in regard to subsequent head colds—yes, they probably will have head colds for a year, but perhaps they will not be as hard to treat. But our work is relatively recent and I cannot give you a first-hand statement on that point. I have a feeling that the sinus is always susceptible to a flare-up, that the sinus membrane remains more or less prone to infection as a result of cold or anything that tends to lower the patient's resistance. But even so, it does not contraindicate drainage to clear up the symptoms.

In answer to the question about opening the natural opening and letting it drain, the natural opening is open; these sinuses are draining; that is what the patient comes complaining of; but the natural opening is not large enough and it is not properly situated to take care of the excess amount of mucus, and your artificial opening simply facilitates that and gives Nature a chance to overcome the infection.

As to the lacrimal duct, I do not know whether I hit it or not, and I do not care. Shaffer has demonstrated that the duct in some cases is closed, in some cases open. It is well forward and surrounded by a firm tissue, and the opening of the sinus is well behind that. Our experience—which is verified by that of Dean and Mosher—is that we have never seen a case of epiphora following such procedure.

Concerning ethmoid infection, I have a feeling that the ethmoids probably start the picture. In most cases my personal belief is that the antrum is acting as a reservoir and giving the patient irritating symptoms rather than acting as an active center of infection. When you drain, that is all that is needed.

The question of heating our homes, I think, is quite apropos; but regardless of how scientific it may be to live in a room at 68, I do not like it.

THE JOURNAL
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IT FOR THE
EXPRESSION OF
YOUR VIEWS
ON
MEDICAL SUBJECTS

PUBLIC HEALTH ACTIVITIES

Edited By

MICHIGAN DEPARTMENT OF HEALTH

SCARLET FEVER CONTROL

THE CARRIER STATE

Probably the most dogmatic public health procedure is the control of scarlet fever. The rules of quarantine vary in different states and in different communities to such an extent that it is quite obvious that there has been no unanimity of opinion as to the sources and modes of infection. Quarantine period varies from three weeks to fifty days and is based entirely upon the epidemiological experience of the individual writing the regulations. In any public health meeting, the proponents of modified quarantine are certain of a "hot" rejoinder from a group of health officers who hold for a long time period of quarantine for scarlet fever.

During the last year there has crystallized out of the many researches on the etiology of scarlet fever some very definite conclusions. The first of these researches to be published was that of the Doctors George and Gladys Dick in October, 1923, when the announcement was made that scarlet fever had been produced experimentally by means of a streptococcus scarlatina, one of the hemolytic streptococci. This was followed by a series of papers, the first of which appeared January 26, 1924, which quite conclusively demonstrated that there was a specific hemolytic streptococcus for scarlet fever. This was also confirmed by Branch and Edwards in 1924, and by Zingher in 1924. Dochez and Sherman produced antiscarlatinal serum for scarlet fever in 1924, and the Doctors Dick also produced antiserum in 1924, and the work of F. A. Blake in 1924 added confirmatory evidence.

These announcements of the various research workers have opened up a field for the health officers in the control of scarlet fever of untold importance.

For many years it has been recognized that some convalescent scarlet fever cases become carriers, but there was no way of demonstrating this fact except by statistics kept upon the number of cases which developed due to contact with scarlet fever recoveries. It has been recognized that convalescent scarlet fever cases, which had draining ears or suppurating glands or sinus involvements, caused a greater number of contact secondary cases than did convalescents that showed no open lesions; still convalescents that showed no open lesions were constantly spreading scarlet fever even though they had been kept in quarantine twenty-eight to forty days.

It has been shown repeatedly that hemolytic streptococci were associated with scarlet fever cases. This fact has been used in the control of quarantine in Pontiac by Dr. Neafie, for about two years, with a marked reduction in secondary contact cases. The Michigan Department of Health has, in institutions, separated out the streptococcus carriers with some success. Since the advent of the work of the Doctors Dick, the procedure can now be made quite specific. For if it can be shown that these streptococci, which the scarlet fever convalescent is carrying either in a draining ear or in his throat which is apparently free from pathology, are the streptococci that produce the specific toxin, we have a definite, scientific reason for holding the case in quarantine for a longer period.

With this fundamental fact in mind, work was started by the department to confirm these various researches and to demonstrate their practicability in the hands of the health officer. Throat cultures from convalescent scarlet fever cases in quarantine twenty-eight days, and cultures from ears of convalescent scarlet fever cases which have been in quarantine longer than twenty-eight days have returned streptococci which produced the specific scarlet fever toxin. The toxin has been tested out on individuals who had shown positive Dick tests. The criterion of judgment was based upon the following procedure:

A group of individuals shown susceptible to scarlet fever by the Dick test were retested with Dick toxin and control. Simultaneously they were tested with the unknown toxin and the unknown toxin mixed with convalescent scarlet fever serum. A series of tests on individuals recently recovered from scarlet fever was run parallel. The results proved conclusively that the organism, which had been isolated from the throats and ears of convalescent scarlet fever cases at the end of the quarantine period, produced the same toxin as that produced by the organism of the Doctors Dick,

demonstrating the fundamental starting point of our future investigations, namely, that the carrier state in scarlet fever can be revealed.—C. C. Y.

HEMOLYTIC STREPTOCOCCI AND TONSILLAR INFECTION

This report is based upon a study of 115 inmates of the State Industrial School for Boys. Tonsillectomies were performed on all of these boys. The cases include only boys known to have been at the school for at least twelve months prior to operation—boys who lived under the same environmental conditions for a uniform, and a reasonably long period. In evaluating the study it must be remembered that sanitary conditions at this institution were deplorably bad until shortly before the date of these operations, and that an epidemic of scarlet fever which totalled over 100 cases occurred the year before. The school afforded the most favorable conditions for the spread of communicable diseases, and for the development of a great many disease carriers.

TECHNIQUE OF STUDY

Throat cultures were taken from each case immediately before operation. The excised tonsils were placed in sterile containers and taken to the laboratory. Each tonsil was inspected and classified according to its gross pathology as one, two, three or four plus, the last mentioned classification including those tonsils which were greatly hypertrophied, or showed pus exuding from the crypts. The surface of each tonsil was seared, and the gland divided in half by a single incision. Swabs were taken from the depths of each incised tonsil and were cultured upon blood agar plates.

The hospital records of each boy were searched and each hospital diagnosis which might bear any possible relationship to tonsillar infection was tabulated. No records of dispensary treatment were available.

RESULTS

The hemolytic streptococcus findings from the throat cultures immediately preceding operation together with the findings from the excised tonsils are shown in the following table:

	Positive for Hemolytic Streptococci		Negative for Hemolytic Streptococci		Total Cases
	No.	%	No.	%	
Pre-operative Throat Cultures	18	15.7	97	84.3	115
Excised tonsils	59	51.3	56	48.7	115

Although the percentage of positives found by different individuals varies considerably, these results agree with those of other workers. Davis[1] found 43 per cent of pre-operative throat cultures positive for hemolytic streptococci, and 97 per cent of tonsillar crypts. Pilot and Davis[2] in a similar study, found 61 per cent of the surfaces of excised tonsils positive and 97 per cent of the crypts. Tongs[3] found 60 per cent of pre-operative cultures positive and 83 per cent of crypts. Nakamura[4] found that 52 per cent of excised tonsils contained hemolytic streptococci.

All of these studies, together with our own, seem to establish the fact that the interiors of tonsils commonly harbor hemolytic streptococci, and that the absence of these organisms from the surface of the throat by no means indicate that they are not present in the tonsils.

The clinical histories of the 115 cases are summarized below. In the miscellaneous classification are placed the occasional cases of rheumatism, bronchitis, and other similar acute infections.

The hospital records gave no significant differences between the two groups. The boys whose tonsils showed no hemolytic streptococci were admitted just as frequently as those whose tonsils did not.

These findings again confirm the results of the majority of other investigators. Caylor and Dick[5] made a quantitative study of bacteria in tonsils and asserted that "there is no relationship between the types of bacteria, and the clinical condition of the patients or the pathologic condition of the tonsil." Davis[1] concluded that nearly everyone has hemolytic streptococci in his tonsils which may or may not cause arthritis, iritis and other focal infections. Bloomfield and Felty[7] believe that in attacks of acute ton-

Hemolytic Streptococcus Findings in Tonsils	Total	No History of Illness		History of Illness		Tonsillitis		More than One attack Tonsilitis		Scarlet Fever		Diphtheria		Fever Unknown Origin		Sore Throat		Miscellaneous	
		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Positive	59	15	25.4	44	74.6	22	37.3	5	8.5	10	16.9	11	18.6	15	25.4	8	13.5	5	8.5
Negative	56	15	26.8	41	73.2	18	32.1	5	8.9	9	16.1	6	10.7	7	12.5	13	23.10	10	17.8

sillitis the hemolytic streptococci are not of autogenous origin.

DISCUSSION AND SUMMARY

Hemolytic streptococci are decidedly more prevalent inside the tonsils than they are on the surface of the throat. Such a result only gives additional weight to lack of value of negative laboratory findings. A hemolytic streptococcus carrier may give a long series of negative throat cultures, but during all of this time, he may be carrying the organisms in his tonsils. The streptococci may be released at any moment and may be the cause of acute tonsillar or pharyngeal infection in other individuals. If one accepts the work of G. H. Dick and G. F. Dick[6] and recognizes a hemolytic streptococcus as the cause of scarlet fever, and if one remembers that the hemolytic streptococci found in tonsils are culturally similar to those associated with scarlet fever, the importance of these statements is evident. It is possible that there are chronic scarlet fever carriers who harbor the causative organism in their tonsils and intermittently spread the disease.

As far as the patient himself is concerned the clinical focal infection importance of hemolytic streptococci in the tonsils seems to be less than has been commonly supposed. However, too much emphasis cannot be laid upon the fact that only hemolytic streptococci inside the tonsil where they have been dormant and walled off for a long time are being considered. The negative findings in such a study do not lessen the clinical value of positive hemolytic streptococcus cultures in cases of acute pharyngitis, tonsillitis, septic sore throat and infections where their casual relationship is well known.

—G. H. R.

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NOTES

For the first eleven months of 1924 there was a notable decrease in the number of cases of communicable disease reported, due very largely to the fact that the number of measles cases has been greatly reduced. Up to December 1st, last year, there had been reported 28,000 cases of measles, whereas during the same period this year there have been less than 18,000; a decrease of more then 10,000 cases.

Whooping cough, diphtheria and pneumonia all show marked decreases, that for diphtheria amounting to 22½ per cent.

The most notable increase has been in smallpox, which shows a gain of 2,600 cases, and in poliomyelitis of which there were reported 617 cases for this eleven months, as compared with thirty-nine last year.

A daily query received by the laboratory of the Michigan Department of Health involves the color of antitoxin.

Color of antitoxin in the syringe bears no relation to the potency or safety of the product. It is a result of the method of manufacture and is definitely related to the amount of preservative used and the thickness of the cake of the globulin fraction as pressed in the filter press. All antitoxin distributed by the Michigan Department of Health, as well as other biologicals, is retested for safety and potency before being placed in the hands of the physicians. Duplicates of each number are stored in our refrigerators until all packages of that lot number have either been used or been returned to the manufacturer for exchange.

There are more safeguards placed around the distribution of biological products than any other therapeutic agent.

Birth certificates are now issued by the department to parents of children born in Michigan since March 1, 1924. The certificate shows that the birth of the child has been duly registered with the Michigan Department of Health.

Care on the part of physicians and others in filling in the original certificate, particularly in the matter of spelling and legible writing of names and post office addresses, will facilitate the sending out of the certificates. The appreciation of parents is clearly shown by the many letters of acknowledgement, and by the requests for certificates for older children.

Whenever and wherever the number of smallpox cases and deaths increases, we are again furnished with unanswerable arguments for vaccination. Of this year's smallpox cases in Michigan, 85 per cent gave a history of never having been vaccinated. Dr. C. J. Vaux, the health commissioner of Pittsburgh writes that 90 per cent of the cases reported during 1924 have never been successfully vaccinated. Dr. A. J. Chesley, the state health commissioner, places the Minnesota figure for fatal cases at 89 per cent. All these statistics are interesting, but they only add unnecessary proof to our already thoroughly grounded knowledge

about vaccination. It is deplorable that enough smallpox cases have occurred this year to make such compilations possible, and that the public have not learned from the experience of previous years, and decades, to protect themselves.

The close association between scarlet fever and sore throat is well known. In the light of our knowledge recently acquired from the work of Dochez and the Dicks, it seems fairly certain that the many sore throats which occur during scarlet fever outbreaks are really cases of the latter disease, even though they never have any visible skin eruption. The public health application of these statements is plain. Cases of streptococcus sore throat should always be isolated according to law, but during these periods of high scarlet fever incidence, these isolations should be carried out consistently and strictly. School children found to have sore throats should be excluded until it is definitely established that they are not suffering from scarlet fever.

Comparatively few physicians realize when they fill in a death certificate, that they are completing a legal document and that the information placed thereon is filed for all time. A request sent out from the State Department of Health not long ago, for additional information on the death certificate, listed a reply with the following statement: "and doctor won't it be possible some time to have these certificates destroyed, for when we come to the end and meet some of our mistakes on the other shore and find out what they really died of, it will take half the joy out of Heave nto think of the record we left behind."

Every physician in the state has been supplied with a copy of the Thirtieth Decennial Revision of the International List of Causes of Death and where it is possible so to do statements of cause should be in the exact language of the list. The statistical office cannot afford to guess at what a physician means, at the same time they cannot afford to put every certificate which is not clearly stated, in the "cause unknown" column and this necessitates an enormous amount of inquiry. For instance, peritonitis cannot be accepted as a cause of death. Rarely, if ever, is it idiopathic and inquiry changes this character of certificates in at least 95 per cent of the cases. If the cause is peritonitis and the physician does not know the cause of peritonitis, he should so state on the death certificate: "Peritonitis, cause unknown." typhoid fever, appendicitis, puerperal septicemia and trauma are very often concealed under this title.

Then again, a very large number of violent deaths have to be queried because the kind of violence is not stated. From the standpoint of classification it is not important to know that it was a fractured skull, but what caused the fracture. Was it an automobile accident, a fall, injury by machinery, or an accident in a mine or quarry?

Bronchial pneumonia is another bad statement, unless the cause is a primary broncho pneumonia. This disease is usually due to a secondary infection and where this is true, the primary disease should always be stated, as for instance, measles followed by broncho pneumonia.

Our vital statistics will be of value in the prevention of disease and the prolongation of life, only as they contain correct information and for the medical information, this matter rests entirely in the hands of the practicing physician who signs the death certificate.

It is almost impossible to pick up any current publication without finding some reference to deaths from automobile accidents, but the mere knowledge that deaths from this cause have occurred is not sufficient. If this menace on our highways is to be greatly reduced, we must know something more about it. The examination of the death certificate does not, as a rule, give any information beyond the fact that the automobile was a factor in the death; whether or not the deceased was a pedestrian, driver or passenger does not usually appear.

For the first ten months of this year, the increase in the number of deaths over the corresponding period of last year, was equivalent to 32½ per cent, but while the number of deaths has not quite kept pace with the increased number of automobiles in use, it has at no time during the last fourteen years been very far behind, in spite of the fact that the automobile itself has been wonderfully improved, is much more easily handled and drivers, of course, are, theoretically at least, more experienced.

In order to get more definite information as to why these accidents are occurring, the Michigan Department of Health has instituted a system of investigation and in the case of every death that is reported, where an automobile is involved, a questionnaire is sent out in the endeavor to elicit definite information. This questionnaire is as follows: Was deceased the driver of the automobile, passenger therein, pedestrian, or in other vehicle?..... Were other persons killed or injured?..... Was car supposed to be in good mechanical condi-

tion as to brakes, etc.? ..... Was driver experienced, competent and sober? ..... Sex..... Age..... Was liquor found in car?..... Was accident due to skid, wet pavement, loose gravel, curve, or other road condition?..... ..... If collision with another automobile, describe. (Bright Lights?)..... If deceased was a pedestrian, describe. .... If a collision with a railroad train or interurban, was crossing protected by automatic signals, gates or flagman?..... ..... Was track visible in both directions?..... Had driver any previous accidents?.....

While this system has just been inaugurated with the deaths reported in October, the department has already received some very interesting information.

Physicians would add greatly to the success of this investigation if, in completing their death certificate, they would note briefly the facts connected therewith. This again brings the question of medical statement on the death certificate, which should always state when an automobile is involved. Causes of death from violence are classified in accordance with the kind of violence rather than the result. A fractured skull is not of interest in the classification of the cause of death, but the cause of the fracture, such as a fall, automobile accident, traumatism by machinery or whatever the cause may be.

A recent certificate giving the cause of death as a fractured skull, was queried and a very pat reply appeared on the bottom of the letter: "Motorcycle, moonshine, speed, curve, ditch." This is the kind of information that will enable us to make an intelligent study of this rapidly increasing cause of death and possibly suggest remedial legislation.

TREATMENT OF SHOCK WITH GLUCOSE INFUSIONS AND INSULIN

In three cases cited by David Fischer and Myron Snell, Milwaukee (Journal A. M. A., Dec. 13, 1924), insulin subcutaneously and glucose intravenously caused a rapid cessation of the typical clinical symptoms of surgical shock, much more rapid and certain than by any previous methods heretofore tried. A sterile, chemically pure solution of glucose is used, preferably of 10 per cent strength; 500 or 1,000 c.c. may be given, depending on the severity of the condition to be treated. The usual sterile precautions are taken as in other intravenous medications. The solution is allowed to flow into the veins at a very slow rate, so that at least one hour is consumed from the beginning to the end of administration; the longer the time, the better. The amount of insulin to be used depends entirely on the amount of injected glucose. For every 3 gm. of injected glucose, one unit of U-20 insulin should be used; and if H-20 insulin is used, one unit for every 2 gm. The total amount of insulin to be given should be divided intot two equal doses, one part given five minutes after the beginning of the glucose administration, and the remainder at the end of the administration. So long as glucose appears in the urine, one need not fear an insulin reaction, for this acts as a safety guide and shows that there is more glucose present in the blood stream than can be taken care of by the introduced insulin. This glucose can be driven off by the injection of a small additional amount of insulin. Since glucose has a diuretic action, and tends to deplete the body tissues of fluids, it is the author's custom to give at the same time fluids by rectum or hypodermoclysis.

PERIODIC PHYSICAL EXAMINATIONS

About 1870, a Dr. Dobell of England suggested that periodic physical examinations be provided by life insurance companies to the holders of policies. In 1900, Dr. George M. Gould read before the Section on Practice of Medicine of the American Medical Association a paper which contains practically all the valid arguments that have since been used to urge such examinations on the medical profession and on the public. Since that date, papers have appeared at an increasing rate, one of the most significant, as pointed out by Dr. E. B. Edie,[1] being the recommendation by Dr. Burnside Foster in 1909 to the Association of Life Insurance Medical Directors that such examinations be given to holders of policies every five years. As stated editorially a few weeks ago, the American Medical Association is co-operating actively in plans for promoting periodic health examinations among the public, and in devising methods whereby this function of the family physician will be retained in his hands, rather than delegated to commercial or pseudophilanthropic organizations not adequately controlled. In his consideration of the subject, Dr. Edie, as a member of the Committee on Public Relations of the Pennsylvania State Medical Society, contends that any practitioner can plan and conduct a campaign in his own community with the assurance that some citizens will be found favorable to the movement and that a gradually increasing portion of the population will seek such examinations. The individual physician must be ready to give his own patients a type of physical examination that will be above reproach.[2] It should be needless at this time to urge on any physician the importance of this campaign as a means for prolonging life, but it seems to be necessary to urge that the individual physician become thoroughly interested, instead of permitting such examinations to become the business of those who are only too willing to exploit the practice of medicine. "The acid test of the physician's faith in health examinations," says Dr. Edie, "indeed, of his faith in the science and art of medicine, is that he has an annual examination made of himself." As was described a few months ago, one hundred members of the Kings County Medical Society in Brooklyn submitted themselves to such examination's, and the results published were a practical means of focusing public attention on the plan. It is time that physicians everywhere rise to the occasion and become a part of the leadership in this movement.—Jour. A. M. A., Dec. 13, 1924.

1. Edie, E. B.: Periodic Health Examinations, Internat. Clin. 4:91, 1924.

2. The Bureau of Health and Public Instruction of the American Medical Association has prepared a standard blank for conducting such examinations, and has available reprints of an article concerning testing methods, samples of which will be sent on request.

The Journal
OF THE
Michigan State Medical Society
ISSUED MONTHLY UNDER THE DIRECTION OF THE COUNCIL

PUBLICATION COMMITTEE
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Editor and Business Manager
FREDERICK C. WARNSHUIS, M. D., D. Sc., F. A. C. S.
Grand Rapids, Michigan

Entered at Grand Rapids, Michigan, Postoffice as second class matter.
Acceptance for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917, authorized August 7, 1918.

All communications relative to exchanges, books for review, manuscripts, news, advertising and subscriptions are to be addressed to F. C. Warnshuis, M. D., 4th Floor Powers Theatre Building, Grand Rapids, Michigan.
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Subscription Price—$5 per year, in advance

JANUARY, 1925

Report Malpractice Threats Immediately to Doctor F. B. Tibbals, 1212 Kresge Building, Detroit, Michigan.

Editorials

NEW YEAR GREETINGS

Be still and hold thy peace and hide
Thy dreams from all the world beside,
From the soul's secret depths they'll rise
And shed their soft light on thine eyes,
As stars the nightly heavens fill;
Cherish them fondly and be still.

How shall thy heart its longings show?
Thy will, how shall thy neighbor know?
How shall the world thine aims descry?
Betray thy dreams—and 'tis a lie!
Disturb, and thou beclouds't the rill;
Feed on thy visions and be still!

Learn to live in thyself apart,
In the dark confines of thine heart
Worlds of enchanted fancies dwell,
Earth's sordid tumult breaks the spell;
Their still small beam days fierce lights kill;
List to their music, and be still!

(*After the Russian of Tyouchev.*)

The wisdom expressed in the above voices an individualism that approaches the ideal. To be still, to listen, to obey, to work and to wrought. What better code for human endeavor can we formulate? This does not imply that one must retire into cloistered existence. It is not a command to withdraw from man and events apart. On the contrary it bids one to labor with and among his fellow man and then as sure as night will follow day, recognition, honor and accomplishments worth while will create the halo that appraises life and individuality.

So in extending to our members and readers our hearty good wishes for a Happy New Year we commend that you strive for the attainment of these ends. Prosperity, joy and contentment will then be yours when 1925 passes into history.

POST-GRADUATE CONFERENCES

Just as rapidly as arrangements can be perfected these Post-Graduate Conferences will be conducted in the fourteen Councilor Districts of the State. Our Executive Committee and Secretary are busily engaged in perfecting the schedules and will make contact with the officers of each district and work with them in formulating local arrangements.

The Committee has a definite general plan and policy. This is requisite for systematic work and accomplishments. The fundamental purpose is to provide programs that will deal primarily with the consideration of scientific advancements in medicine and recognized methods of diagnosis by the employment of modern means and methods. The purpose being to attain perfection in the examination of individuals and the making of accurate diagnoses. Modern methods of treatment and the employment of the newer proven methods of treatment will not be stressed in the first Conference; these will be largely reserved for the second meeting that is planed for each district. This statement is made to anticipate expressions of desire to have incorporated in the first program discussions of treatment.

The plan that has been formulated, we believe, incorporates a scope of activity that is certain to be of value and benefit to every member and marks the commencement of organizational activity that enhances individual membership. The interest that has been evidenced at the three conferences that have been conducted attests to the wisdom of instituting this movement. We urge, once again, that when the conference is announced for your district that you let nothing prevent your being in attendance. We welcome your suggestions and comments.

We are attaching to this editorial a *tentative* schedule of dates for the holding of our Post-Graduate Conferences during the first half of this year. It will be noted that from two to three of these conferences are planned for each month. There is a large amount of preliminary work to be performed to complete the details for each meeting. Our Executive-Secretary, Mr. Smith, appears on the scene two days be-

fore each conference. It is impossible to lessen the time between each meeting place.

Exact dates, programs, arrangement of details will be taken up with the officers of each district as rapidly as possible. We are imparting this advance information solely for the purpose to advise when these conferences will occur in your district. The schedule is as follows:

Tentative Dates for the Post-Graduate Medical Conferences, 1925:

1st District—Detroit, April 16-30.
2nd District—Hillsdale, January 29.
3rd District—Battle Creek, March 5.
5th District—Grand Rapids, March 19.
6th District—Flint, February 26.
8th District—Saginaw, January 20.
10th District—Bay City, January 22.
11th District—Muskegon, April 2.
12th District—Upper Peninsula, July.
13th District—Petoskey, May.
14th District—Ann Arbor, February 12.

THE PORT HURON POST-GRADUATE CONFERENCE

On Monday, December 10th, 1924, the first Post-Graduate Medical Conference of the 7th District, embracing the counties of Huron, Lapeer, Sanilac, and St. Clair, was held at Port Huron in the parlors of the Harrington Hotel.

The conference opened at 10 a. m. and continued throughout the day untill 6 p. m.

We were more than satisfied to have an attendance of fifty physicians—all of whom expressed delight upon the quality of the papers and the interesting and admirable manner in which they were respectively presented.

From personal observation and conversation with many of the visiting physicians, some of whom drove over a hundred miles to attend, I am satisfied that these conferences fill a much desired want and are productive of incalculable benefit to the profession.

The visiting physicians expressed to me the opinion that the State Medical Society, by thus arranging these clinics which have for their objective the presentation of the leading advances in medicine and surgery, was doing something tangible for its members—the result of which would be the cementing and furtherance of the loyalty of its members to the parent society; and in addition, by attracting the interest of our legitimate non-members to add a goodly increase to our state and county membership.

The increase in the Annual Dues to $10 should meet with no objection from any member when the State Society, free of charge to the local societies, puts on such an interesting, instructive, and successful meeting as was held here December 10th.

Right here I want to pay tribute to yourself and your Executive-Secretary for the selection of such a worthy program and for the efficient and business-like manner which our Executive-Secretary, Mr. Smith, displayed here in the arrangemetn of the clinics with their various details.

In the evening, in the hotel dining room, Dr. J. B. Kennedy, of Detroit, gave a most interesting public address, the caption of which was, "The Conservation of Your Personal Health." The physician-orator was at his best and in his inimitable style held his auditors spellbound as he related the discoveries and achievements of scientific medicine—and then showing with a concise clearness their application to personal and public health.

My conclusions as to the value of our post-graduate clinics and public meetings, are that we are on the right track to bring about the much-to-be-cherished desideratum: 1st. To have and to hold the complete co-operation of all of the members of the State Society and; 2nd. To win the interest and approbation of the general public to the high ideals of scientific medicine by taking them all into our confidence and telling them—as well as showing them—what the medical profession is doing, and trying to do, for humanity.

As Councilor for the 7th District, on behalf of its members I wish to express our gratitude to the phyiscians, whose names appear in the appended program, for the very splendid manner in which they presented their subjects. No profession can ever fail or be displaced so long as its members emulate the fi,ne spirit shown by the gentlemen who conducted our first post-graduate medical conference.

Cordially yours,
Alex J. Mackenzie,
Councilor, 7th Dist.

PROGRAM

10 a. m.—Opening Statement. President Clancy, Councilor MacKenzie, Executive Secretary Smith.

10:30 a. m—"Physical Examinations," Elmer Eggleston, M. D., Gastro Enterologist, Battle Creek Sanitarium.

11:00 a. m.—Questions.

11:10 a. m.—"Modern Treatment of Fractures of the Humerus, Colles Fracture and Potts Fracture," (Demonstration), A. D. LaFerte, Jr., M. D., Detroit.

11:50 a. m.—Questions.

12:15-1:30 p m.—Luncheon. Two Fifteen Minute Talks.

1:30 p. m.—"Diagnosis of Gastric and Duodenal Ulcer," Elmer Eggleston, M. D.

1:50 p. m.—Questions.

2:00 p. m.—"Diagnosis of Intestinal Obstruction," Angus McLean, M. D., Detroit, Ex-president Michigan State Medical Society.

2:20 p. m.—Questions.

2:30 p. m.—"What Modern Obstetrical Care Implies," Ward Seeley, M. D., Detroit, Harper Hospital.

2:50 p. m.—Questions.

3:00 p. m.—"Diagnosis of Heart Lesions," W. J. Wilson, M. D., Detroit, Harper Hospital.

3:20 p. m.—Questions.

3:30 p. m.—"Pelvic Inflammatory Diseases," Ward Seeley, M. D., Detroit, Harper Hospital.

3:50 p. m.—Questions.
4:00 p. m.—"Insulin," Hugo Freund, M. D., Detroit, Harper Hospital.
4:20 p. m.—Questions.
4:30 p. m.—"Digitalis Therapy," W. J. Wilson, M. D., Detroit.
4:50 p. m.—Questions.
5:00 p. m.—"Therapeutic Agents—Gentian Violet, Mercurochrome, Etc." Hugo Freund, M. D., Detroit.
5:20 p. m.—Questions.
5:30 p. m.—"Surgery of the Thyroid," Angus McLean, M D., Detroit.
Questions.
6:30-8:00 p. m.—Dinner.
8:00 p. m.—Public Meeting; J. B. Kennedy, M. D., Detroit, Chief of Surgical Service, Grace Hospital.
This is a laymen's public meeting to which a cordial invitation is extended to all. Urge your friends to come.

THE POST-GRADUATE MEDICAL CONFERENCES

Four thousand people, out of which 165 were physicians, have come in direct contact with the aims and activities of the Michigan State Medical Society extension work since the beginning of its program at Traverse City, November 18. Clinics, lectures and public meetings have been held at Traverse City, Port Huron and Niles.

Beginning in the forenoon of December 10, and continuing throughout the day, 45 physicians of St. Claire, Huron, Sanilac and Lapeer counties returned to their studies by attending and participating in diagnostic clinics, listening to lectures and asking questions. Eminent medical men and specialists delivered 11 papers on subjects of vital importance to the practicing physician. That these lectures were well received, that they brought the message sought, was evidenced by the intense interest which prevailed throughout the meeting and the enthusiasm with which the program was received.

Elsewhere in Port Huron 1,250 children listened to the rules of health and bodily care as laid down by understanding and entertaining speakers. It was in all respect a health day for the "thumb of Michigan." That the parents of these children appreciated what the physicians were doing was evidenced by the audience which attended the public meeting which was held in the evening. Mayor J. B. McIlwain presided at the public meeting. During his introduction the Mayor brought out the significant fact that any health measures in which doctors and public are jointly interested must make for a better citizenship and better and more ideal living conditions.

Close upon the Port Huron meeting followed a similar conference at Niles, on Dec. 17, where the attendance of physicians exceeded that at any previous meeting. Physicians attended from Berrien, Kalamazoo, VanBuren, Allegan and Cass counties and 10 physicians came over from South Bend, Ind. Lectures were given in the schools and a public meeting was held in the evening. The subject of the meeting was "Physical and Mental Sunshine." Dr. J. S. Pritchard, of Battle Creek, spoke on the work of Dr. Rollier in France on the Alpine slope, who has obtained splendid results in the treatment of tubercular and malignant infections with the aid of sunshine. As evidence of the public interest, the only complaints that were heard was that the lecture was too short.

These clinical lectures and discussions constitute a post-graduate work that no physician can afford to overlook. It saves him the time required in extensive travel and repeated absence from his home and practice. As the extension works progresses the clinical opportunities expand and with each meeting more physicians and more people show an increasing interest.

THE NILES POST-GRADUATE CONFERENCE

A post-graduate medical conference for the physicians of the Fourth Councilor District was held at Niles on December 17th. The meeting was well attended, about seventy-eight physicians registering during the day. The program was well arranged, affording a great variety of topics all of which were of interest to any one engaged in the practice of medicine.

The meeting began at 10:45 a. m. and was concluded a few minutes after six. There was an intermission of about an hour and a half for lunch. This was a long session, but the interest did not seem to lag at any time. The men in attendance at this meeting showed a sincere desire to make the best use of their time, maintaining their interest throughout the day. The subjects were discussed in a concise, practical and scientific manner. There were no absentees among those whose names appeared on the printed program. The district certainly wishes to express its sincere thanks to each man who took part in presenting this program.

As Councilor for the Fourth District, I can report to the Society a most profitable day for those who attended the Niles meeting. We hope to have another such conference later in the year. Judging from the expressions of approval from those present at this meeting we should double the attendance at the next conference.

Especial mention should be made of the very fine luncheon and dinner served by the ladies of the Trinity Episcopal church. The trinity Church Community House made an ideal place for putting on such a conference.

John B. Jackson, Councilor

The program was as follows:

10 a. m.—Opening Statements. J. B. Jackson, M. D., Kalamazoo, Mich., Councilor Fourth District, Presiding. Executive Secretary Smith.

10:45—"Periodical Examinations and the Doctor's Job," B. R. Corbus, M. D., Grand Rapids, Mich.

10:35—"Fundamentals of Neurological Examinations," C. D. Camp, M. D., Ann Arbor, Mich.

11:05—"Differential Diagnosis of the Chest," J. S. Pritchard, M. D., Battle Creek, Mich.

11:35—"Hypotension," M. A. Mortenson, M. D., Battle Creek, Mich.

12-1:30 p. m.—Luncheon. Two Fifteen Minute Talks.

1:30 p. m.—"Principles of Modern Obsterical Care," H. S. Collisi, M. D., Grand Rapids, Mich.

2 p. m.—"Physical Examination of Children," H. T. Clay, M. D., Grand Rapids, Mich.

2:30 p. m.—"Treatment of Neuralgias," C. D. Camp, M. D., Ann Arbor, Mich.

3 p. m.—"Fractures," F. C. Warnshuis, M. D., Grand Rapids, Mich.

3:30 p. m.—"Diagnosis of Intestinal Obstruction," B. R. Corbus, M. D., Grand Rapids, Mich.

4 p. m.—"Treatment of Bronchitis and Pneumonia," J. S. Pritchard, M. D.

4:30—"Interpretation of Physical Examination of the Heart," M. A. Mortenson, M. D.

5 p. m.—"Burns and Infections," F. C. Warnshuis, M. D.

5:30 p. m.—"Essentials of Infant Feeding," H. T. Clay, M. D.

6-8 p. m.—Dinner.

8 p. m.—Public Meeting. "Mental and Physical Sunshine in the Treatment of Disease," J. S. Pritchard, M. D.

OUR PRESIDENT'S MESSAGE—EDUCATION

In the progress of civilization change marks each succeeding era as checked off by the calendar and education has now come to occupy a place of greater importance than ever before in the history of America.

Time was when the artisan, the industrialist and even the man of business found fewer educational demands upon him than are made upon those similarly occupied in this age. In the earlier period, adequate facilities for the dissemination of knowledge were limited and rendered difficult of attainment, because of the environment in which the majority lived, and their ideals and ambitions were definitely smothered in the struggle to meet the persistent urge of physical necessities. Hence, the pathway toward broader training and mental development was reserved for the fortunate few, whose life opportunities afforded them the privilege of liberal instruction.

Later, and coincident with the commercial and industrial development of our nation, came wealth and power, and likewise the fruition of hopes deferred, in respect to bringing more knowledge to the people of all classes. As a result, from the university down the line to the township school, great changes have been made, and today all grades of education may be had for the asking.

Responsive to public sentiment there has grown up an extensive propaganda in behalf of greater learning, with so widespread scope that it ha sbecome the sounding note of the nation, the cost being cheerfully paid and the public ever calling for more. The American people have discovered the intrinsic value of education in all lines of the acid test of comparison, in service rendered on their account, and by adoption of this standard the best alone can hope for aproval while baser metals must be consigned to the scrap heap.

In fine, the public mind is becoming trained in the analytical science of differentiation between the real and the spurious, between concrete facts and vapid theories, and between scientific entities and superficial claims. Truly, this is a scientific age builded upon the ashes of departing mysticism.

Accepting the doctrine of universal education predicates the need for its distribution through channels best suited to the task, and having most intimate contact with the subjects taught. Therefore, to carry the message of medicine to the public coalition of forces from the University of Michigan and the State Medical Society has been effected, bringing into being the Joint Committee on Public Health Education, which has already accomplished much and with the full co-operation of Medical men will soon cover the entire state.

There is another phase of education of even greater moment which may well receive the endorsement and support of the medical profession as a whole, since it relates to the every day experience of the physician, and has for its end results the good of humanity.

And to lecture on Public Health matters to others falls far shotr of closing the curriculum, fo rsomething convincing to the public mind, in the way of enlarging our own store of knowledge may be helpful, and would seem essential in establishing mutual sentiments of accord and understanding.

The District Medical Conferences, recently instituted by the State Medical Society, offer a workable plan for conducting periodically in each District popular gatherings of physicians for the purpose of pursuing post graduate studies. These meetings are very valuable and none can afford to neglect taking advantage of them, since the latest word on things medical and surgical may be heard there. Besides, the leading teachers in the profession bring, for the benefit of all, their knowledge and experience in dealing with every day problems.

To everybody concerned it is apparent that the former cordial relations, based upon confidence, between patient and physician, have become less in evidence, and much thought has been expended in searching out the case. Responsibility is charged to the advent of the specialist, to the growth of hospitalization, and by others, to the reincarnation of the cults. But there is another view, perhaps worthy of consideration, and it has to do with factors coming down through the ages, as inheritances from an earlier medical profession, in which the mystic and the emperic played a leading role, and exclusiveness and dignity were regarded as the sine qua non.

The traditions of medicine, held sacred by its followers, does not harmonize with the reactions of an age launched upon a career of education, and possessing a consuming desire to learn the whys and the wherefores. And regret it or not, we must perforce yield to public demand, and tell the whole story of medicine and the wonders of its accomplishments in behalf of the human race. The record is an honorable one and we should find pride and gratification in its recital.

C. C. Clancy.

WHAT CONSTITUTES ADVERTISING?

On several occasions, recently, requests have been received for opinions as to what constitutes medical advertising. For the purpose of setting forth an interpretation of the subject the following opinions and definitions are set forth for the information and guidance of our members and to govern the officers of County Societies:

1. The Principles of Medical Ethics of the American Medical Association in Chapter II, Article I, Sec. 4, sets forth the following principle:

Sec. 4.—Solicitation of patients by physicians as individuals, or collectively in groups by whatsoever name these be called, or by institutions or organizations, whether by circulars or advertisements, or by personal communications, is unprofessional. This does not prohibit ethical institutions from a legitimate advertisement of location, physical surroundings and special class—if any—of patients accommodated. It is equally improfessional to procure patients by indirection through solicitors or agents of any kind or by indirect advertisement, or by furnishing or inspiring newspaper or magazine comments cocncerning cases in which the physician has been or is concerned. All other like self laudations defy the traditions and lower the tone of any profession and so are intolerable. The most worthy and effective advertisement possible, even for a young physician, and especially with his brother physicians, is the establishment of a well-merited reputation for professional ability and fidelity. This cannot be forced, but must be the outcome of character and conduct. The publication of or circulation of ordinary simple business cards, being a matter of personal taste and local custom, and sometimes of convenience, is not per se improper. As implied, it is unprofessional to disregard local customs and offend recognized ideals in publishing or circulating such cards.

It is unprofessional to promise radical cures; to boast of cures and secret methods of treatment or remedies; to exhibit certificates of skill or of success in the treatment of diseases; or to employ any method to gain the attention of the public for the purpose of obtaining patients.

In addition to the above principles, the following resolution adopted by the House of Delegates of the American Medical Association:

Resolutions on Questions of Ethics and Propriety Concerning Institutional Publicity:

Dr. George E. Follansbee, Ohio, presented the following, which was referred to the Reference Committee on Legislation and Public Relations. (37)

Whereas, Many problems and questions of ethics and propriety concerning institutional publicity are constantly arising; and,

Whereas, There is no definite published guide available to the directors and officials of medical institutions; and,

Whereas, There is a widespread need for such guidance; therefore be it

Resolved, By the House of Delegates of the merican Medical Association:

1. Publicity by clinics, hospitals, sanitariums and other semi-public medical institutions as to the quality of work done implies unusual and exceptional ability and efficiency on the part of their professional staffs and therefore is advertising of the medical men concerned. This type of advertising distinctly savors of quackery and is unethical.

2. Publicity by any such institution stating or implying that by reason of its exceptionally fine equipment and material resources, it is able to, or does, give the public better medical service than similar institutions are able or willing to render, is advertising for purposes of self-aggrandizement. Statements of this type are frequently exaggerated and misleading, are detrimental to the best interests of the public, of the institution concerned, and of true medical progress. Publicity of this kind is unethical.

3. Hospitals, sanitoriums and other similar public medical institutions must raise funds both for capital investment and running expenses from an interested public. Furnishing to the public facts concerning such an institution, its work, its aims and its ideals is legitimate and desirable. Such publicity deals in facts to which the public is entitled and i nwhich it is interested, and is therefore ethical, provided it carefully refrains from any comparisons, either direct or implied; therefore be it further

Resolved, That the proper officials of the American Medical Association be instructed to seek the co-operation of the American Hospital Association of these ethical standards.

Our Council has set forth the following interpretation that now serves as an additional light upon the question:

"First, The group or associated body of phy-

sicians is amendable to the same regulations and principles as is the individual physician."

"Second, The fact that two or more physicians have formed a partnership, group, or clinic, does not grant them special publicity privileges."

"Third, The creation of a group or Clinic dose not convey unusual publicity privileges, even though part of their activities may be of a charitable type."

To still further elucidate the discussion it is proper to impart the following interpretations that conform to expressed opinions uttered in this country.

MAILING OF ANNOUNCEMENTS

Local custom determines the standard. When no such standard exists it is recommended that the County Society be requested to set forth what shall be permissible in the wording of such announcements before a doctor resorts to sending out professional announcements or inserting cards in local newspapers. The mailing list to whom announcements are sent are to be limited to bonafide patients and personal acquaintances. It is proselyting and contrary to the principles of ethics governing medical consultations to send such announcements to individuals who have been seen in consultation with another physician, or to an individual who has been referred for consultation or operation by a fellow physician.

It is held that people, when desiring a certain physician's services, will find and locate that physician without being the recipient of formal announcements. The sending to individuals of announcements repeatedly or on least provocation is construed as solicitation and must be looked upon as unwarranted and so is unethical.

As a final summary it is well to observe that service, and not the printed announcement, is the desired medium for individual publicity.

ENDOWMENTS

Taxes alone do not support our universities and colleges. Tuition fees are necessarily small and a minor resource in the defrayment of an institution's expenses. Were it not for gifts and endowments our higher educational institutions would be financially embarrassed. Neither would they have accomplished what has and is being accomplished. Our American colleges would be few and of inferior type had it not been for endowments and special gifts.

County and State Medical Societies are present day educational institutions. Under our present plan and scope of activity their educational features are of more extended application and are planned to attain further reaching results. To extend, to secure a wider demonstration of activity and to cause each year greater accomplishments are the ends that are being sought by those who are engaged in medical education work that is sponsored by our State and County Societies.

One of our most important responsibilities is to aid the member to render better professional services and to become more proficient in his work. In the endeavor to do this we are inspiring better and more efficient services for the public.

Our State Society is developing such a program. It hopes to extend the work as rapidly as possible. The one retarding factor is limited finances. This type of work costs money and our receipts from dues restrict the degree of progress. Just as our colleges and universities stand in need of gifts and endowments, so does our State Medical Society in order that it may develop its educational policy.

In connection therewith we are advancing the suggestion for the creation of an endowment fund. Surely there are some, so blessed with funds that they can now, or by their wills, convey to our society gifts or endowments of from $500 to $50,000 to create an educational endowment fund. If we had such a fund of from $250,000 to $500,000, the interest earnings, leaving the principle intact, would provide the funds whereby your officers could establish a periodic postgraduate course of study and instruction in every Councilor District. Such courses to be of four to six days duration and conducted at three month intervals. Let Michigan lead in this plan and program. To do so we solicit such contributions to an endowment fund. Will you, if so endowed, consider this plan and may it appeal sufficiently to awaken the spirit of contribution.

AN INVITATION TO AID

We are advised that by reason of the death of Beverly D. Harrison, his widow is left in somewhat destitute circumstances. We are also requested to come to her relief.

Dr. Harrison served as Secretary of the State Board of Registration for some twenty-five years. He accomplished much for the good and the advancement of our profession individually and collectively. For his services he was but meagerly remunerated. His salary was barely sufficient to defray living expenses. His resources left are such as to be insufficient to provide comforts for his wife in her declining years.

Therefore, at the request of a goodly number of members, The Journal has agreed to act as a medium to solicit voluntary subscriptions from physicians, to create a fund for Mrs. Harrison. Any doctor, desiring to subscribe

can do so by sending their contributions to the Editor, Powers' Theatre Bldg., Grand Rapids.

OUR DECEASED MEMBERS

From reports received the following former members responded to the final summons during the year 1924.

DEATHS

L. L. Mills, Webberville.
Robert B. Honey, Dexter.
George M. Hull, Ypsilanti.
Morton Gallagher, Bay City.
H. R. Pearce, Battle Creek.
Daniel La Ferte, Detroit.
Joseph Vandeventer, Leesburg, Va., formerly of Ispheming, Mich.
Francis Schilling, Nashville.
H. W. Whitmore, Quincy.
B. B. Godfrey, Holland.
C. F. Smith, Muskegon.
George W. Fralick, Maple City.
George D. Carnes, South Haven.
Charles Truman Spencer, Webberville.
W. W. Walton, Mancelona.
H. M. Holcomb, Lansing.
F. J. Knight, Charlotte.
Theodore A. McGraw, Detroit.
Perry Schurtz, Grand Rapids.
Carroll Lawrence Storey, Detroit.
MoffattFlynn, Bay City.
Beverly D. Harrison, Detroit.
J. E. Scallon, Houghton.

In reverence do we pay tribute and record their cessation of labor in our archieves. We recognize that each in his own sphere, his own field of activity contributed a full measure of useful deeds that served to reflect dedicated lives devoted to their fellow men and to the general welfare of society. As co-workers we mourn their deaths and record the esteem in which they were held.

OUR LEGISLATIVE POLICY

The question as to what shall be our policy as to legislation that may arise in the present session of our legislature has received full and considerate discussion by our Council. There is also published in this issue a lengthy communication from Dr. Woodward of the A. M. A. Bureau of Legal Medicine and Legislation. The Council at its special meeting last month adopted the following resolution:

That the Council hereby instructs its Executives and the Legislative Committee to assume the following policies and procedures in dealing with all matters pertaining to medical legislation that may arise during the coming session of the Legislature:

(a) There shall be no paid lobbyist in Lansing.

(b) The Legislative Committee shall resort to all honorable means to educate and inform members of the legislature, relative to medical facts and requirements for the safe guarding of the public's health, calling upon members of the Council and component societies to aid them.

(c) The Council directs the Legislative Committee to submit to the Executive Committee of the Council a plan of educational activity regarding medical legislation.

(d) It is recommended that the Legislative Committee consider the expediency of delegating to a lay representative the responsibility of appearing before all Committee Hearings of the Legislature bearing upon Medical legislation.

The Committee on Legislation, observant of these instructions, purposes to evidence intensified activity. It is incumbent, however, that the Committee receive statewide co-operation from our members. The direction and scope of this co-operation will be conveyed to you by individual communication with the officers of County Societies. When this communication is received, prompt attention will be imperative. It is hoped that there will be no delay in complying with the instructions issued.

PUBLIC HEALTH DEPARTMENT

With this issue of The Journal we are reinstituting a department devoted to public health matters. It will be a feature of subsequent issues. The copy material will be supplied by Dr. R. M. Olin, State Commissioner of Health, and designated memers of his staff.

Public health and public health measures are a concern of every medical man. A definite responsibility exists. It is incumbent that individually and collectively we recognize this responsibility and join in the maintenance of an effective public health movement. The avenues along which we may become active will be outlined in this department. It will also acquaint us with the work that is being done and the plans that are being developed by our State Department of Health. Our members are urged to inform themselves fully upon these matters and to support a program of constructive public health education and activity in the state.

COUNCIL MEETING

The Council of the Michigan State Medical Society will convene for its regular mid-winter meeting in Battle Creek, ————, Jaunary 14th, 1925, at 9 a. m. Any business that properly comes before this executive body will be in order.

The Council will meet with the Joint Committee on Public Health Education at Noon.

F. C. Warnshuis, Secretary.

Editorial Comments

We would appreciate receiving individual comments and appraisals as well as suggestions from members in whose districts Post-Graduate Clinical Conferences have been held. Our object is two-fold—to profit by such opinions and suggestions so as tot improve future Conferences tnd to stimulate members in the Districts where Conferences are to be held to embrace and receive the most benefit from them. Will you not supply us with this assistance? We will not publish them, if you so indicate, or, we will publish them omit-

ting names—just as you desire. We are desirous of receiving your frank opinion for it is only by means of this assistance from our members that we will be able to develop this feature of organizational work. Send in your communications.

We would that every member would realize that in the magazine Hygeia, he has a personal emissary that mingles with the public and enlightens them as to medical facts and practices. Hygeia is an emissary that accomplishes ends in a manner not otherwise possible. As such Hygeia merits and is entitled to the support of every doctor. We regret to state that Hygeia is not receiving this support. Why, we can't perceive. This coming month and year should record a change in our attitude. We must awaken to the fact that an opportunity is being ignored. Shall we not determine to change the situation and put Hygeia over in Michigan?

The Journal purposes to be more than a publication that supplies each member with worth-while original articles, editorial observations, society and state news. That extended purpose is a desire to aid the member in solving individual problems and supplying individual information. That is the purpose of the department devoted to "Among Our Letters." We invite you to employ that department and to make use of that service. We also request that you use it for the expression of your comments, opinions and suggestions. Make it an open forum that will create interest and impart instruction. We are dependent upon each member to cause it to serve that purpose. Please utilize it.

Please note the new department, commencing in this issue, devoted to Public Health Activities. Each issue will contain items that will be of assistance and interest to every practcing physician. We are delighted to add this feature to our Journal thereby enhancing its value. It is but another evidence of what your state organization is undertaking to enhance the value of membership. We are of the opinion that no other organization gives you as much in return for the annual dues you pay as does your County and State Medical Society. If you fail to derive full profit the reason is that you are not grasping the opportunity to receive these numerous benefits. Determine now to be a full participating member. You are the personal loser if you neglect to do so.

Your 1925 dues are now payable. Send them in to your County Secretary. It is as easy to do so now, during January, as it is in March and April. Your County Secretary will appreciate your early remittance. Lighten his official duties by doing so.

In Nebraska a questionaire was sent to the members of the State Medical Society. The first question was: "What should be the attitude of the medical profession toward the various cults?"

The replies were: "Ignore, 216—Compel by law, 11—Educate the laity, 30—open antagonism, 29—Tolerance, 37—Equalize science requirements, 65—Doubtful or no answer, 10. The second question was: "Should the State Medical Society engage in propaganda to educate the public?"

The replies were: Yes 267; No, 89. These replies are quoted to convey the trend of medical opinion in connction with the solution of our problems.

We have a brother who has been in China for some twenty years. In discussing personal experiences he narrated that when first he went to China all Chinamen looked alike to him, but that after a while he got to recognize individuals. The application of this experience may be made to our medical problems. To the uninformed they apepar as being all alike, but when a study is made individually fundamentals will be perceived. Their solution will materially aid in clearing up the entire situation.

In the death of Beverly Drake Harison, the profession has lost a man who has been an outstanding figure in our state medical life during the past thirty years. Our medical practice act and the provisions therein were only made possible by Dr. Harison's aggressive activity. That which our State Board has accomplished has been due to his executive administration of the policies established. No one was as familiar with the legal points involved as was this deceased secretary. Elsewhere in this issue will be found a narrative of his life. The years will be long and many ere our memories become dim of this man who has written his character in a lasting manner in our medical history and for our good.

A special meeting of The Council was held in Detroit on December 11th. The minutes of that meeting will be found in this issue. Look for them.

We are in full accord with the movement seeking to obtain accurate and complete case history and records for hospital patients. However, such a movement is useless and ridiculous unless the hospital and nursing staffs are compelled to elevate their type and standard of service to the patient. Records alone will not improve or conserve the patient's welfare. Nursing service is of far greater importance. We are somewhat inclined to resent this continued harping upon doctors about records and little or no attention paid to nursing service and hospital care for the patient. Unless that is evidenced, it is all rot to rant about records. Then, too, is the query not pertinent that Boards of Trustees had better concern themselves as to administrative and nursing services in their hospitals and perfect these first before seeking to assume the role of supervising censors of doctors and their penwork.

April 22nd, has been determined upon as the date for the holding of our Annual Conference of County Secretaries in Grand Rapids. The details of arrangements, program and entertainment will be announced in our next issue. County Secretaries are requested to note this date and arrange now to let nothing interfere with their attendance. This is one of our important meetings and each member of the Society will profit thereby.

Because of its importance we urge that you read the action taken by the Council regarding our legislative policy. The minutes of that meeting will be found in this issue.

We are in the midst of the so-called pneumonia season. Let it be remembered that bronchitis usually precedes pneumonia and that from its extension we encounter bronchial pneumonia. Lobar pneumonia is of lesser frequency. Experience also establishes that drugs exercise but little influence upon the disease. In a review of some fifty cases treated by different men some 70 different drugs were exhibited—utter rot, super-medication, polypharmacy, or whatever you wish to call it. The gamut from "cow-dung" to antiphlogistine is and smells of barbaric days. Yes we know that the

excuse is that the family and friends expect you to give and do something. Remember, however, that the family and friends are not as un-informed as they were twenty-five years ago. You will satisfy them and be giving something if you get them into a room and tell them the truth regarding pneumonia and make it clear to them that rest, quiet, ventilation, water and moderate elimination will accomplish more than a stand filled with drugs. By doing so morbidity and mortality will be lowered. You cannot hope to be a modern doctor, obtain modern results, if you continue to use what was discarded twenty-five years ago.

Don't think for a moment that the "Chiros" have not been active in interviewing members of the legislature. They also have levied assessments to pay for legal assistance and lobbying expenses. These members of the legislature are also your representatives. Some of you know them personally. You are the men to interview them personally and enlighten them as to facts and also the inconsistency of turning under-educated men free to treat conditions and endanger public and individual health. Unless you see and repeatedly interview these representatives they are going to be influenced by the "bunk" of the cultist. Because Jones has talked to your representative and senator do not assume it is unnecessary for you to do so. The more doctors from your district calling upon legislature members the better effective will be the result. Do not fail to do so. Keep at it.

Every physician is constantly importuned to try out some new remedy. The claims are always advanced in a plausible manner, but how often are the results only failure and disappointment?

"New and Nonofficial Remedies," issued by the Council on Pharmacy of the American Medical Association, is a reliable, handy guide to the merits of the newer medicinals.

It gives unbiased information on composition, action, dosage, physical and chemical properties, tests for identification and control, and names of manufacturers.

Thus the physician, even though not an expert in chemistry, may discriminate between worthy and the unworthy preparations that he is asked to prescribe. The pharmacist, catering to the best class of physicians in the dispensing of prescriptions, may benefit by this unfailing guide; and the manufacturer by taking advantage of processes, composition and advertising methods that have proved most favorable both to the public and to the profession, may profit immeasurably.

Newspapers advise us that a certain alienist is going to spring a new symptom complex in defense of an Illinois murderer. It's just such fool stunts and public pratting that lower the profession in the eyes of the people. An individuals bid for sensational publicity and a fee. Self above all else. Personal quest no matter how it reflects upon the group. Have we not had enough of this "blah" stuff?

For experience, education, amusement and human nature study, get a good car, fill it with five doctors and then drive home for a distance of 100 miles after attending an all day session of one of our Post-graduate Clinical Conferences. Let your five passengers be a chest specialist, an obstetrician, pediatiatrist, surgeon and layman. We assure an assortment of stories, old, new, bad and good. Interspersed you will receive edifying information as to the importance and accomplishments of each specialty and some brazen boasting. The 100 miles, even though an icy pavement prevetns ordinary speed and seven hours are consumed in covering the distance, will be a short summer evening drive and reveal what human mortals constitute our ranks. It will be a novel experience. Try it.

County officers have received instructions by letter as to legislative activity. Our State Committee requests this co-operation. Promptness in complying with these and future letters will be of material assistance. Please do not delay answers. Time is always an element. If your Committee is to be successful in its endeavors our County Officers and members must aid by whole hearted, prompt assistance.

Minutes of the Special Council Meeting

Detroit, Dec. 11, 1924

Pursuant to the call issued by the Chairman, a special meeting of the Council was held in the Book-Cadillac Hotel, Detroit on December 11, 1924.

1. The meeting was called to order at 9 a. m. by the Chairman, with the following Councilors present: Jackson, Walker, Greene, Darling, Burke, VanLeuvan, Bruce, Corbus, Ricker, Baird, MacKenzie, Randall. Secretary-Editor Warnshuis, Treasurer Welsh, President Clancy and Executive-Secretary Smith.

2. Dr. Lyons of Ann Arbor, and Dr. O'Reilly of Detroit, apepared before the Council, representing the State Dental Society. They requested that the Council endorse in behalf of the State Medical Society the plan that is being developed by the State Dental Society relative to representation on the State Commission of Health for the purpose of securing a state prophylactic dental campaign and education of the people:

Moved by Councilor Randall-Bruce, that the Council tender to the State Dental Society the endorsement of the Michigan State Medical Society for their campaign.

Carried.

SECRETARY-EDITOR'S REPORT

To the Council,
Michigan State Medical Society.
Gentlemen:

I am privileged to transfer to you my annual report for 1924. By instructions of the Chairman of the Council and of the Finance Committee, our books were closed on December 1st, thus causing the year to cover only an eleven months' period. This was occasioned by reason of this Special Meeting of the Council.

The financial audit made by Ernst & Ernst, bonded auditors, sets forth the Society's financial condition and is a sfollows:

December 9, 1924.

To the Council of the Michigan State Medical Society,
Dr. F. C. Warnshuis, Secretary,
Grand Rapids, Mich.

Gentlemen:

We have audited the books of account and record of the MICHIGAN STATE MEDICAL SOCIETY for the period of eleven months ended November 30, 1924, and submit herewith our report.

The results from financial operations of the Society for the eleven months under audit are set forth in the following summary:

JOURNAL INCOME	Amount	Per Cent
Subscriptions, Reprints, Advertising, Etc.	$13,008.23	100.00%
Less: Journal and Reprint Expense	10,587.77	81.39%
Profit on Journal Publication	$ 2,420.46	18.61%
DUES AND OTHER INCOME		
Membership Dues and Interest Earned	$ 3,110.34	100.00%
Less: Annual Meeting, Society Expense, Etc.	4,028.96	129.53%
Excess of Society Expense Over Dues, Etc.	*$ 918.62*	*29.53%*
NET INCOME	$ 1,501.84	

A statement of the Assets and Liabilities of the Society at November 30, 1924, is included elsewhere in this report, subject to the following comments:

Cash on deposit at November 30, 1924, was verified by direct correspondence with the Old National Bank, Grand Rapids, Mich. We traced all recorded Cash Receipts for the eleven months' period directly to the bank deposits, as shown by the bank statements. All recorded cash disbursements were found to be supported by cancelled bank checks, invoices, or other data on file.

Accounts Receivable were verified by trial balance of the individual accounts, but we did not correspond with the recorded debtors to further verify the accuracy of the book records. However, we analyzed the accounts as to age and have classified them according to date of charge as follows:

DATE OF CHARGE	Amount
November, 1924	$ 706.98
October, 1924	55.17
September, 1924	179.75
August, 1924	39.50
July, 1924	40.50
June, 1924	118.75
March 1st, to May 31st, 1924	56.34
December 1st, 1923, to February 29th, 1924	45.02
Prior to December 1, 1923	144.20
Total	$1,386.21

We inspected the bonds included under the caption of Securities Owned.

As far as we could ascertain, full provision has been made for all known liabilities of the Society at November 30, 1924, except for invoices aggregating $159.46 for expenses which Dr. Warnshuis stated applied to operations subsequent to November 30, 1924. The books of the Society show cash receipts of $94.00 from subscriptions to the Legislative Committee. In accordance with Dr. Warnshuis' statement that these collections reimbursed the Society for advances previously made to the Legislative Committee, we have included them in Net Worth in the preparation of this report.

We hereby certify that we have audited the books of account and record of the *Michigan State Medical Society* for the period of eleven months ended November 30, 1924, as kept by the Secretary-Editor, Dr. F. C. Warnshuis, and that, in our opinion, based upon the records examined and information obtained by us, the accompanying Statement of Assets and Liabilities is drawn up so as to set forth the correct financial position of the Society at November 30, 1924, and that the relative operating statement is correct.

Very truly yours,
ERNST & ERNST.

(SEAL)

STATEMENT OF ASSETS AND LIABILITIES
MICHIGAN STATE MEDICAL SOCIETY
November 30, 1924

ASSETS

CASH—			
On Deposit with Old National Bank			$ 15.97
ACCOUNTS RECEIVABLE—			
Due from Subscribers, Advertisers, Etc.			1,386.21
SECURITIES OWNED—			
Bonds of Citizens Telephone Company, (5%)		$2,000.00	
Bonds of Pen-Ohio Edison Company (6½%)		1,000.00	
Bonds of Dutch East Indies (5½%)		1,000.00	4,000.00
			$5,402.18

LIABILITIES

Advance for Advertising			$ 73.25
Due to Defense Fund			199.50
NET WORTH—			
Balance—Jan. 1, 1924	$3,533.59		
Advance to Legislative Committee Repaid by County Societies	94.00	$3,627.59	
Add: Net Income for the 11 Months ended November 30, 1924		1,501.84	5,129.43
			$5,402.18

NOTE A—No provision has been made in this Statement for Accounts Payable of the Society aggregating $159.46, which Dr. Warnshuis stated were applicable to operations subsequent to November 30, 1924.

NOTE B—This Statement is subject to the comments contained in our "Certificate" included in and made a part of this report.

INCOME AND EXPENSE

MICHIGAN STATE MEDICAL SOCIETY

For the Eleven Months Ended November 30, 1924

INCOME—		
Sales	$ 5,936.80	
Journal Subscriptions and Reprint Sales	1,270.35	
Advertising Sales	5,801.08	
Membership Dues	2,920.20	
Interest Received	190.14	$16,118.57
EXPENSE—		
Journal Expense	$ 9,531.88	
Society Expense	3,247.09	
Reprint Expense	1,055.89	
Council Expense	208.97	
Expense of Delegates to A. M. A.	193.75	
Annual Meeting	379.15	14,616.73
NET INCOME		$ 1,501.84

SOCIETY

Our Society is composed of fifty-six County Societies. On January 1st, 1923, our membership was 2,827. At the close of the present fiscal year our membership is 2,822 in good standing, a loss of five members, with 469 delinquents.

Name of County	Active	Delinquent
Alpena	15	6
Antrim	8	7
Emmett-Barry	12	3
Bay	58	6
Benzie	2	6
Berrien	46	11
Calhoun	93	24
Cass	7	....
Cheboygan	1	10
Chippewa	21	8
Clinton	12	11
Delta	26	5
Dickinson-Iron	7	15
Eaton	19	17
Genesee	115	31
Gogebic	18	13
Grand Traverse	22	10
Gratiot-Isabella	31	11
Hillsdale	23	6
Houghton	38	26
Huron	7	15
Ingham	77	6
Jackson	65	....
Ionia	16	15
Kalamazoo	119	9
Kent	178	12
Lapeer	16	4
Lenawee	22	4
Manistee	10	1
Macomb	26	3
Marquette-Alger	34	3
Mason	2	6
Mecosta	19	1
Menominee	11	....
Midland	6	....
Monroe	26	....
Montcalm	17	....
Muskegon	63	5
Newaygo	13	....
Oakland	56	3
O. M. C. O. R. O.	9	....
Ontonagon	6	2
Osceola-Lake	....	5
Ottawa	27	5
Presque Isle	1	
Saginaw	48	21
Sanilac	12	4
Schoolcraft	5	1
Shiawassee	28	1
St. Clair	47	8
St. Joseph	16	4
Tri-County	19	4
Tuscola	20	5
Washtenaw	138	9
Wayne	1,160	84
	2,822	469

The year just closed has been an epochal one in our history. It marked the close of a period of organizational life covering fourteen years of scientific activity with a moderate manifestation of civic educational concern. It likewise, witnessed our formulating and instituting definite plans for a broadening of our scope of endeavor and meeting up to our present day responsibilities. These latter features have been fully outlined in our editorial work. I shall not recapitulate them in this report.

There are several problems that present themselves for solution at this meeting. They pertain to the work of 1925 and require careful consideration for the formulation of definite instructions to your executives and are as follows:

SECRETARY-EDITOR

1. With the forward step of securing a full time Executive Secretary the Council is called upon to determine,

(a) Shall the office of Secretary-Editor be divorced and all the duties of the secretary be assigned to the Executive Secretary?

(b) To whom, then, shall he report and be responsible?

(c) What disposition shall be made of the office of Editor and what duties shall devolve upon your Editor?

BUDGET FOR 1925

1. I have formulated a tentative estimate for a budget for 1925 and submitted it to the Chairman of the Finance Committee for consideration by the Council. The items should be definitely fixed by The Council.

POST-GRADUATE CONFERENCES

3. A report upon these will be made by the Chairman of County Societies Committee and our Executive-Secretary. To anticipate possible criticism arising from misunderstandings a statement should be formulated setting forth the purposes and scope of these conferences and the subjects that shall be considered upon the progress of meetings.

EXECUTIVE COMMITTEE OF THE COUNCIL

4. At the Mt. Clemens meeting an Executive Committee of the Council was created. Since the last Council meeting, two Executive

Committee meetings have been held and its minutes have been forwarded to each member of the Council. These minutes should by motion, be incorporated in our Council's proceedings.

ANNUAL MEETING

5. Under our new By-Laws all the arrangements for our annual meeting has been delegated to the Council. Instructions should be imparted as to how these arrangements should be perfected and by whom.

COUNTY SECRETARIES' CONFERENCE

6. Good resulted from the County Secretaries' Conference held last April. For a continuance of concerted state-wide activity these conferences are of greatest importance. I would recommend that authorization be granted and instructions be given to arrange for such a conference of County Secretaries in April in Grand Rapids.

LEGISLATION

7. Our legislature convenes with the ushering in of 1925. There is not the slightest doubt but what a number of public health measures, and medical practice regulations will be introduced for enactment. The query is pressingly pertinent: What is to be our program? What instructions shall be imparted to our Legislative Committee and executives? What participation shall be allotted to our component units and members?

I have purposely refrained from incorporating in this report any personal recommendations that I hold by reason of the years of contact with organizational work. I prefer to submit them when the Council takes up the discussion of these several problems.

THE JOURNAL

The journal during the year earned from advertising and subscriptions the following income:

Supscriptions and advertising sales	$13,008.23
Journal expense was	10,587.77
Leaving a net profit of	$2 420.46

As to its value, its contents and its standing, I am content to have these appraised by each number that has been issued. The editorial labor has been exacting and heavy. We feel repaid by the reception that has been accorded to these efforts.

For the information of the Council, I am pleased to report that commencing with the January issue four pages in each number will be devoted to Public Health Activities and this copy will be supplied by the State Commissioner of Health.

In the budget submitted provision is made to enlarge each number of The Journal by 20 pages this coming year.

The problem of editorship is submitted for your solution and instruction.

The publication committee has been very alert to its duties and I desire to record my personal appreciation to its members for the support and confidence they have manifested in your Editor.

CONCLUSION

With the submission of this report fourteen years of service is completed by your Secretary-Editor. I repeat, as I have done on several occasions during these years, that I am ever ready on an instant's notice to relinquish these duties. While on the other hand, if The Council expresses such a desire, I am willing to carry on as my abilities permit me to be of service. Medical problems, our State and County organizations and the interests of Michigan men have and will ever be for me a subject of interested concern. If I can enhance them, if I have served their elevation and have conserved their welfare, I shall by such appraisal feel repaid for the personal sacrifice contributed.

I am deeply grateful for the trust that has been imposed and the confidence expressed.

F. C. Warnshuis, M. D.

3. The points raised in the Secretary-Editor's Report were discussed and acted upon as follows:

LEGISLATION

4. The legislation problem was reviewed and discussed at length by all the members and by the following: Angus McLean, W. J. Stapleton, Davey, Marshall, Cobb, Gerlst and Senator Green.

On motion of Councilor Bruce-Corbus the following resolution was adopted:

Be It Resolved:

That the Council hereby instructs its Executives and the Legislative Committee to assume the following policies and procedures in dealing with all matters pertaining to medical legislation that may arise during the coming session of the Legislature:

(a) There shall be no paid lobbyist in Lansing.

(b) The Legislative Committee shall resort to all honorable means to educate and inform members of the legislature, relative to medical facts and requirements for the safeguarding of the public's health, calling upon members of the Council and component Societies to aid them.

(c) The Council directs the Legislative Committee to submit to the Executive Committee of the Council a plan of educational activity regarding medical legislation.

(d) It is recommended that the Legislative Committee consider the expediency of delegating to a lay representative the responsibility of appearing before all committee hearings of the legislature bearing upon medical legislation.

5. The Council adjourned for lunch at 1 p. m., and reconvened at 2 p. m.

BUDGET FOR 1925

6. The Secretary presented a budget to govern financial expenditures for 1925 as follows:

1925 PROPOSED BUDGET

MICHIGAN STATE MEDICAL SOCIETY

ESTIMATED INCOME—	
2,900 members, each $10.00	$29,000.00
EXPENDITURES—	
To Medical-Legal Committee, each $2.00 (2,900)	$ 5,800.00
To Journal Fund, each $2.50 (2,900)	7,250.00
Salary Executive Secretary	4,800.00
Expense, Executive Secretary (Traveling)	1,000.00
Stenographer	1,200.00
Rent, light, telephone	420.00
Annual Meeting Expense	500.00
Post-Graduate Clinical Meetings Joint Committee	5,000.00
Committee Expenses	1,000.00
Legislation Expenses	1,000.00
Printing and Postage and Office Supplies	450.00
Council Expense	500.00
Delegates to A. M. A. Expense	300.00
Total Budget	$29,220.00

(Apparent deficit will be overcome by receipt of dues from more than the estimated 2,900 members.)

JOURNAL BUDGET

RECEIPTS—	
Membership subscriptions	$ 7,250.00
Miscellaneous subscriptions	200.00
Advertising sales	6,000.00
Total Receipts	$13,450.00

1925 ESTIMATED JOURNAL EXPENSE
(3,000 Copies)

Printing 92 pages per issue	$ 9,760.00
Postage and Mailing	300.00
Wrappers	225.00
Addressograph Changes	60.00
Salary Account and Editorial Expense	3,000.00
Reserve Fund for Extra Pages and possible special issues	500.00
	$13,845.00

1. Apparent deficit of $395.00 will be overcome by the small profit on reprint sales and by subscriptions in excess of 2,900.
2. This will provide for a 92 page Journal, each issue. We have been running from 64 to 76 pages with one of 92 pages. This budget provides for an increase of an average of twenty pages to each issue.

Moved by Councilor Baird-Ricker that the budget submitted be adopted. Carried.

Moved by MacKenzie-Greene that the following resolution be adopted:

Carried.

Resolved, That the expenditure of Society Funds shall be disbursed under the following restrictions:

1. Expenditures shall be charged to the respective funds set up in the Annual Budget as their disbursements indicate.
2. When a given Budget Fund is exhausted, no overdrafts shall be permitted on that fund.
3. There shall be no transfers of credit from one fund to another without the written joint approval of the Chairman of the Council and the Chairman of the Finance Committee.
4. Vouchers shall be signed as provided by our By-Laws.

Moved by Corbus-MacKenzie that expenses of speakers of our Post-Graduate Clinical Conferences be paid. Carried.

SECRETARY-EDITOR

7. Moved by Walker-Darling that the Executive Secretary discharge his duties under the direction of the Secretary-Editor and the Executive Committee of the Council. Carried.

ANNUAL MEETING

8. Moved by Randal-Burke that the Executive Committee be authorized to select the date for the Annual Meeting and that the details of local arrangements be supervised by the Secretary-Editor. Carried.

SECRETARIES' CONFERENCE

9. Moved by Ricker-MacKenzie that a conference of County Secretaries be authorized. Carried.

SECRETARY-EDITOR'S REPORT

10. Moved by Greene-Randall that the Secretary-Editor's report be accepted. Carried.

11. Councilor LeFevre arrived.

ANNUAL MEETING OF COUNCIL

12. Moved by Ricker-Burke that the Annual Meeting be held in Battle Creek in January and that the quorum present be instructed to adopt the proceedings of this Special and Pre-Annual Meeting. Carried.

COMMUNICATION FROM KENT COUNTY

13. Councilor Corbus presented a communication from the Board of Directors of the Kent County Medical Society. After discussion, Councilors Corbus-LeFevre moved that the following letter be sent:

December 12, 1924.

Dr. Homer T. Clay, Secretary,
Kent County Medical Society,
City.

Dear Mr. Clay:

I am authorized by the Council of the Michigan State Medical Society, in session in Detroit, December 11th, to present, through you, to the Board of Directors of the Kent County Medical Society, the following letter:

To the Board of Directors of the Kent County Medical Society.

Gentlemen:

The Council of the Michigan State Medical Society acknowledges the receipt of your communication requesting an interpretation of the Principles of Ethics of the American Medical Association in reference to certain publicity involving the Grand Rapids Clinic, exhibits of which are presented.

The Council feels that your guide in this matter should be the Principles of Ethics of the American Medical Association and the Follansbee Resolution passed by the House of Delegates at the last meeting of the A. M. A.

The Council does not deem it wise at this time, to consider or pass on the xhibits in this particular case. It feels justified, however, in calling your at-

tention to certain principles which are a part of and are to be found in the above mentioned reference.

First: The group or associated body of physicians is amenable to the same regulations and principles as is the individual physician.

Second: The fact that two or more physicians have formed a partnership, or group or clinic, does not grant to them special publicity privileges.

Third: The creation of a group or clinic does not convey unusual publicity privileges, even though part of their activities may be of a charitable type.

The Council recommends that your board, in exercising its duties, studiously seek to amicably solve its own disciplinary policies and problems.

Respectfully submitted by direction of the Council.

B. R. CORBUS,
Councillor Fifth District.

End. Follansbee Resolution,
Principles of Ethics of A. M. A.

ELECTION

14. Moved by Councilor Randall-Darling that F. C. Warnshuis be elected Secretary-Editor for the ensuing year. On vote the chairman declared the election.

TREASURER

15. On motion of Councilor LeFevre-Burke, Dr. Emmett Welsh was declared elected as Treasurer for the ensuing year.

On motion of LeFevre-Ricker an honorarium of $100 was authorized to be paid to the Treasurer.

16. President Clancy discussed some of the reciprocity and licensing features of our medical practice act for the information of the Council.

EXECUTIVE COMMITTEE

17. Moved by Darling-Walker that the minutes of the Executive Committee be approved and incorporated in the minutes of the Council. Carried.

18. Adjourned at 5 p. m.

ATTESTS F. C. Warnshuis,
Secretary.

Among Our Letters

NOTE.—*This department is the open forum of our members. Your communications and discussions are welcomed. Anonymous communications cannot be accepted, though at times names may be omitted by the Editor. Personalities will not be printed and responsibility for opinions is not assumed. We invite your interest in this department. Address: The Editor, Journal, Michigan State Medical Society, Powers Theatre Bldg., Grand Rapids, Mich.*

Editor The Journal:

Please advise me as to the procedures that govern the hearing of charges preferred against a member.

J. S. Brotherhood,
Chairman Board of Directors,
Kent County Medical Society.

REPLY

Dear Dr. Brotherhood:

Please be advised that the following is the procedure for the handling and hearing of charges preferred against any member of the County Medical Society:

1. Charges are made in writing, setting forth the allegations and signed by one or more members in good standing.

2. These charges are sent to the Secretary of the County Society, who presents them to the Chairman of the Board of Directors. The Chairman of the Board of Directors calls a meeting of the Board, advises them of the nature of the charges and against whom they are made.

3. The Board of Directors set a day for a hearing and notifies the accused that charges have been preferred against him, sends him a copy of the charges and notifies him that a hearing will be held on such and such a day at which time he will be afforded an opportunity to defend himself and refute the charges if he so desires.

4. At the date set for the hearing the entire Board Convenes and calls upon the plaintiff to present and substantiate his charges. Having done so, the accused is afforded an opportunity to refute them. Both plaintiff and accused having had opportunity to present their statements, they are excused and the Board of Directors reviews the statements and evidence and then determines:

(1) Charges are proven.
(2) Charges are not proven.
(3) The accused is or is not guilty.
(4) If guilty, that the penalty shall be censorship, suspension, expulsion.

5. Having reached its decision, the Board then prepares its report and submits it at a meeting of the Society. The President takes a vote to approve or disapprove the findings of the Board of Directors. If the Society votes to sustain the findings of the Board then the penalty imposed by the Board becomes effective.

6. If the accused feels that he has not had a fair trial he may appeal to the Council of the State Medical Society. The Council will proceed with a hearing and on the evidence and facts submitted will sustain or reverse the action of the local Society. Appeal may then be taken if the accused wishes to the Judicial Council of the American Medical Association, which is the final court of appeal.

7. The Board of Directors may appeal to the Councilor or the Council for instructions and advice before conducting a hearing.

8. The Councilor of the District is empowered to represent the Council and may employ his office to adjust the trouble or advise the Board of Directors and to exhaust every means before placing the matter before the entire Council.

F. C. Warnshuis, Secretary.

LEGISLATIVE RESPONSIBILITIES

Editor The Journal:

Since our conversation of November 20, I have given considerable thought to the policy contemplated, I understand, by the Michigan State Medical Society, of submitting to the state legislature a printed brief showing the dangers of quackery, and thereafter ignoring any efforts that quackery may make to install itself, in the form of a licensing board or licensing boards composed of quacks, as an integral part of the Government of Michigan. I have been unable, however, to reconcile such a course with the traditions of the medical profession. It seems to me too much like withholding from the people the benefits of the special knowledge pos-

sessed by the medical profession, and the medical profession alone.

I assume that the Michigan State Medical Society believes that quackery is a menace to public health, safety and morals; otherwise it would have no ground on which to file even the proposed brief. So long as the Society entertains that belief, every tradition of the medical profession, it seems to me, requires it to let the people have the benefit of the professional knowledge on which the belief is founded. The Society can hardly justify itself in presenting to the legislature simply a dignified, calm, dispassionate statement of facts, any better than it could justify a similar course in urging legislation for the protection of the people if it were the plague bacillus threatening them, and not merely the chiropractor, the naprapath, etc. At least, the burden of squaring its course with the traditions of the profession, in the one case as in the other, would be on the Society, and before embarking on the proposed course it might be well for the Society to set down in black and white the reasons that lead to it. Is the reason anything more than that the Sociey is tired of conducting biennial campaigns for the protection of the people, and of being abused by the very beneficiaries of such campaigns? If so, is that a sufficient justifiction for inaction? If the Society is relying on any other justification, how will it square inaction at the present time with its previous activities?

Of course, one must concede the legal right of the medical profession to withhold its aid. Its moral right to do so, however, is not so clear. No group of persons lose, by reason of being physicians, any of the obligations of good citizens to serve the people; and if the people as a mass need information that the medical group has, it seems to me to be the duty of the group to supply it if practicable. The fact that the legislature or some other agency of the people is not aware of its own need for such information increases, rather than decreases, the obligation of the group to supply it.

Unless the medical profession is ready to repudiate its supposed civic duty to protect the people with regard to matters of health, safety and morals —a duty incumbent on all good citizens—I can not see how the profession can single out for repudiation so much of that duty as relates to protecting the people against quackery. Persons who practice the healing arts have almost limitless opportunities for immorality of the worst kind, and must be fortified by the proper moral standards. Even if they be not deficient morally, but are simply ignorant and unskilled, they jeopardize the welfare of the people through the injuries they do in the course of their practice. These dangers are better known to the medical profession than to any other group. I can see no reason why the profession should ignore the danger, and abandon the people to their fate.

I doubt very much if anyone familiar with legislative matters would expect the suppression or the regulation of quackery to result from the mere submission of an unemotional, logical, printed statement of the dangers inherent in it. Such a statement is readily torn to pieces before a committee or in private conference with a legislator by any glib quack. Such a one can readily play on the lack of information of the average legislator, and upon the duplicity as well as the ignorance of any legislator eager for an excuse to vote in a way that will procure for him the support of a noisy, organized group—even a group of quacks. Such legislators can justify their votes in favor of quackery by the fact that the quacks have presented plausable arguments to offset statements in the printed brief of the medical profession, and that the medical profession failed to meet the issue.

After all, too, the enlightenment of the legislators is hardly sufficient to lead them to action. It may show them how they ought to act, but an impression on the feelings is ordinarily necessary to bring about action. And such an impression is hardly possible through a printed brief. It requires personal contact—the action of the voice, the expression of the eye, and essential emotional force in attitude and facial expression. The medical profession is, I believe, ordinarily apt to overstep the need for such appeals and the legitimacy of them.

It seems to me that the people of Michigan are entitled to the aid of the medical profession in preventing enlargement of quackery within the state. The fact that it is a disagreeable and exhausting task to afford such protection is in my judgment hardly a sufficient ground for inaction. Personally, I hope that the Michigan State Medical Society will continue to stand before the public as an active civic force in protecting the people against the evils of quackery in the treatment of the sick.

Sincerely yours,

Wm. C. Woodward, Executive Secretary,
Bureau of Legal Medicine and Legislation.

TONSILLECTOMIES

Editor of The Journal:

I read your article about operations in general and tonsillectomies in particular, with great interest.

I believe the only erroneous statement was in placing the number of unnecessary tonsillectomies at fifty per cent. It should have been ninety-nine plus per cent. Your article would have been considered rank heresy but a few years ago. While comparatively few physicians see the light, many of the reactionaries are becoming more vicious for some reason or other.

As an illustration, last week two mothers complained to me that their physicians refused further attention to their children unless tonsils were removed as had previously been recommended. The tonsils in these cases were of utmost vital importance to them in preserving their health. I might say that for the past few years I have taken a strong stand against tonsillectomy. Previously I was doing my share and had reached a point where I prided myself on the quality of the performance. Now I am convinced that tonsillectomy is far more serious than is generally recognized even by its opponents. This decision on my part has been reached as a result of a large clinical experience over eight or ten years. The possibility of clinical results through tonsillar treatment has been a revellation to me.

On the other hand I daily see the patients who are in a most deplorable condition due to tonsillectomy. These conditions go unrecognized and I believe exist by the hundreds of thousands the country over. Either I am crazy or the profession has much to be accounted for.

Personally, I have been exerting all my energy in an endeavor to offset this pernicious practice. Unfortunately, having no hospital of important professional connections my views will not carry weight like they otherwise would. This fact, combined with rather precarious health for the past few years, has deterred me from carrying out efforts along regularly recognized channels which might be worth while. Thank fortune I seem to be improving and trust I will be able to do my bit towards getting real facts on the tonsil situation.

An open minded attitude such as you display will help wonderfully in solving the problem.

Yours truly,
GEO. L. RENAUD.

Comment: All right—Any member further comment?—Editor.

The following letter will accompany 1925 membership certificate:

Editor The Journal:

1st. There is enclosed herewith your certificate of membership for 1925. Frame it and put it in a conspicuous place in your reception room. Let your patients know you belong to the Medical Society of the State and your County. This is not an idle honor; it certifies to your professional standing.

2nd. You are entitled to a copy of THE JOURNAL each month. THE JOURNAL is going to be bigger, better and a greater value to you. Be on the lookout for it. Read it and contribute to it.

3rd. Don't neglect your local County Society. Attend its meetings. Participate in its programs. Join your local officers in carrying out our new state-wide program of organized activity.

You are also eligible for Fellowship in the American Medical Association. Your national organization is active in your behalf. Join it by sending for an application blank. Lend it your support.

Remember this office is at your service. Command us when we can be of help.

F. C. Warnshuis, Secretary-Editor.
Harvey G. Smith, Executive Secretary.

Editor The Journal:

By an amendment to the Constitution of The Association of Military Surgeons adopted at the 32nd Annual Meeting at San Antonio, the Publications Committee is made to consist of a member from the Regular Corps and the Reserve respectively of the Army, the Navy and the Public Health Service and one member from the National Guard. I am directed by the President of the Association, Surgeon General Cumming, to inform you that you have been selected on the nomination of the Surgeon General of the Army to represent the Medical Reserve Corps of the Army on this Committee.

The duty of the members of the Publications Committee is to obtain articles of sufficient interest and value for publication in the journal of The Association, The Military Surgeon. We would be very glad to get an occasional short article in a lighter vein, reminiscences, anecdotes, etc., which have historical or personal interest.

Very sincerely yours,
J. R. Kean, Col., U. S. Army, Retired,
Secretary-Treasurer.

NOTE: Members of the Reserve Corps and those who saw service in the World War are requested to submit articles for publication. We also invite interest in the monthly publication—The Military Surgeon. The above association merits your membership affiliation and interest.—Editor.

State News Notes

COLLECTIONS

Physicians' Bills and Hospital Accounts collected anywhere in Michigan. H. C. VanAken, Lawyer, 309 Post Building, Battle Creek, Michigan. Reference any Bank in Battle Creek.

NURSES' private home, invites convalescents and invalids; best of care, fine location. R. Rs. N. Y. C. and Interurban; best of references given. For particulars write Bessie Bileth, 566 Ely Street, Allegan, Mich.

WANTED: Salaried Appointments for Class A Physicians in all branches of the Medical Profession. Let us put you in touch with the best man for your opening. Our nation-wide connections enable us to give superior service. Aznoe's National Physicians' Exchange, 30 North Michigan, Chicago. Established 1896. Member The Chicago Association of Commerce.

A PRACTICAL course in Standardized Physiotherapy, under auspices of Biophysical Research Dept. of Victor X-Ray Corporation, is now available to physicians. Offers a highly practical knowledge of all the fundamental principles that go to make up the standards of modern scientific physiotherapeutic work. Course requires one week's time. For further information apply to J. F. Wainwright, Registrar, 236 So. Robey St., Chicago, Ill.

Dr. Guy L. Connor of Detroit, has been selected as temporary Secretar yof the State Board of Registration in Medicine until a successor to Dr. Harison is elected.

A. Kuhlman & Company of Detroit, for many years a valued advertiser in the Journal, announces an opening of an uptown store located at 3919 John R. Street, Detroit. This branch surgical supply house will be in charge of Mr. R. Kelso and Henry Kuhlman, Jr.

Dr. Henry T. Holland of Quetta, India, was the guest of Dr. C. E. Beeman, Grand Rapids, during December. Dr. Beeman tendered a dinner to Dr. Holland at which the following guests listened to a discussion on cataracts by the guest of honod:

Henry T. Holland, M. D., Shikarpur, India; C. E. Beeman, M. D., D. Emmett Welch, M. D., W. W. Oliver, M. D., J. T. Auwers, M. D., J. D. Robertson, M. D., J. H. McRea, M. D., G. G. Towsley, M. D., P. T. Grant, M. D., J. G. Huizenga, M. D., J. R. Rogers, M. D., M. M. DeWar, M. D., E. W. E. Paterson, M. D., J. M. DeKraker, M. D., J. A. Heasley, M. D., E. D. Hunderman, M. D., Alfred Dean, M. D., Dean W. Meyers, M. D., Ann Arbor, Mich.; J. J. McDermott, M. D., St. Joseph, Mich.

Dr. William J. Mayo was the guest of the University Medical School on Friday, December 5th when he delivered the first lecture of the "Mayo Lectureship." He addressed a large audience, both medical and lay, on the subject, "The Physiology and Pathology of the Blood in Relation to Surgery."

Doctors George F. and Gladys H. Dick of the McCormick Institute for Infectious Diseases of Chicago, delivered the first of a series of lectures to be given under the auspices of Alpha Omega Alpha, national honoarry medical society, at the University of Michigan, Ann Arbor, December 4th. The Doctors Dick discussed the results of their research on scarlet fever, having been engaged in the study of this disease since 1916.

Dr. Slavko Pejich, a citizen of Jugoslavia and a fellow of the Division of Medical Education of the Rockefeller Foundation, is at present a student in the Department of Anatomy of the University of Michigan, pursuing microscopic anatomy.

Dr. John Sundwall, Director of the Department of Public Health at the University of Michigan, delivered the DeLamar Lecture at Johns Hopkins on Monday, December 1st. His subject was, "The Health Activities of a University."

Dr. W. Einthoven, Professor of Physiology at the University of Leyden, Holland and recipient of the Noble Prize in 1924, was the guest of Dr. F. N. Wilson of the University Medical School for several days. Dr. Einthoven spoke to the medical faculty and student body on the subject, "The Mechanism of Muscular Activity." He also addressed the Physics Faculty, discussing "The Uses of Microscopic Fibers."

Dr. George R. Herrmann of the Department of Internal Medicine, University of Michigan, recently gave a clinic and address before the Kalamazoo Academy of Medicine. He also spoke to the Genessee County Mdical Society on "Cardiac Diagnosis and Treatment."

At a recent meeting of the Board of Regents of the University, Mr. R. G. Greve's title was changed from Business Officer of the University Hospital to that of Associate Director of the University Hospital. Dr. John L. Garvey was made Chief Resident Physician of the University Hospital and Instructor in Neurology. Dr. Albert G. Kerlikowske, fomrerly of the Depratment of Ophthalmology, has been apopinted Assistant Chief Resident Physician of the University Hospital.

Dr. Ward Harryman and wife, of Detroit, left the latter part of December for a year's trip abroad. Dr. Harryman plans to spend the greater part of his time in Paris and London at the various neuropsychiatric clinics.

The fourth annual Beaumont Lectures under the auspices of the Wayne County Medical Society will be held on Monday and Tuesday, January 26th and 27th, 1925. Doctors Charles Mayo and W. A. Plummer will be the guests of honor this year. The first lecture of the series will be on Monday evening at 8 p. m., the second on Tuesday at 11 a. m., and the third on Tuesday at 8 p. m. The profession throughout the state is cordially invited to be present.

Dr. Don M. Campbell of Detroit is at present in Europe.

Dr. Geo. W. Crile gave an illuminating address on the newer problems of Gastro-intestinal Surgery before the Academy of Surgery of Detroit, at the December meeting held at the D. A. C. on Friday, Dcember 12, 1924.

Dr. and Mrs. T. P. Clifford, of Detroit, are the parents of a son, Thomas Percival, Jr., born during the latter part of November.

Dr. H. A. Reye, of Detroit, announces as an associate, Dr. Jas. F. McFadden. They will limit their practice to Neurology and Psychiatry.

Dr. and Mrs. E. D. King, of Detroit, are being congratulated on the birth of a son born in the early part of December.

Dr. F. J. Lee, Grand Rapids, is confined to bed by a serious illness.

The Legislative Committee held a meeting in Grand Rapids on December 18th and in Detroit, December 22nd, in conjunction with the Wayne County Legislative Committee.

On November 12th a Practitioners' Clinic was held at the University Hospital at which time a symposium on appendicitis was given. Dr. Haynes, director of the hospital, entertained the visiting Physicians at lunch.

Dr. Theophile Raphael of the Department of Psychiatry, at the State Psychopathic Hospital, Ann Arbor, has been promoted to the position of Assistant Professor of Psychiatry in the Medical School of the University of Michigan.

The American Board of Otolaryngology was organized in Chicago on November 10. The following constitute the board of directors: Doctors Harris P. Mosher, Boston, president; Frank R. Spencer, Boulder, Colo., vice president; Hanau W. Loeb, St. Louis, secretary and treasurer; Thomas E. Carmody, Denver; Joseph C. Beck, Chicago; Thomas H. Halsted, Syracuse, N. Y.; Robert C. Lynch, New Orleans; Burt R. Shurly, Detroit; Ross H. Skillern, Philadelphia; William P. Wherry, Omaha. The office of the Board is at 1402 South Grand Boulevard, St. Louis, Mo. The board comprises representatives of the five national otolaryngologic associations; the American Otological Society, the American Laryngological Association, the American Laryngological, Rhinological and Otological Society, the American Academy of Ophthalmology and Otolaryngology and the Section of Laryngology, Otology and Rhinology of the American Medical Association. The object of the association is to elevate the standard of otolaryngology, to familiarize the public with its aims and ideals, to protect the public against unqualified practitioners, to receive application for examination in otolaryngology, to conduct examinations of such applicants, to issue certificates of qualification in otolaryngology and to perform such duties as will advance the cause of otolaryngology. The first examination will be held at the time of the meeting of the American Medica lAssociation.

Dr. C. D. Brooks read a paper November 4th, to the Bay City Medical Society on the Management of Diseases of the Thyroid and its Association with Hypothyroidism.

The Rockefeller Institute for Medical Research has announced the release of the drug known as Tryparsamide for use in the treatment of human and animal trypanosomiasis (African sleeping sickness and mal de caderas) and selected cases of syphilis of the central nervous system. This action is based on results reported fro mclinical investigations which have been in progress for seevral years. The drug will be manufactured by the Powers-Weightam-Rosengarten Co. of Philadelphia, and will become available through teh regular trade channels about January 1, 1925. In releasing the drug for the benefit of the public, the Rockefeller Institute desires it to be known that the institute does not share in any way in profits that may be derived from the sale of the drug and that, with the cordial co-operation of the manufacturers, provision has been made for the maintenance of a schedule of prices on as low a basis as possible.

Dr. D. Emmett Welsh, Grand Rapids, will spend February and March in Florida and Mexico.

Dr. A. V. Wenger, Grand Rapids, is back on the job again following operation for acute appendicitis.

Dr. J. B. Whinery, Grand Rapids, has recovered from a severe attack of pneumonia.

Our sympathies are extended to Dr. G. L. LeFevre, of Muskegon, on the death of his sister, which occurred on December 9th.

Dr. R. C. Stone, Battle Creek, has recovered from his serious illness and is spending a few weeks in Arizona.

Dr. W. J. Mayo and Dr. Franklin H. Martin addressed a public evening meeting and the Rotary Club in Grand Rapids on December 5th.

Dr. W. J. Mayo addressed the faculty and students of the Medical Department of the University on December 5th.

Our Society Business and Activities

HARVEY GEORGE SMITH

EXECUTIVE SECRETARY

NOTE: This Department will each month contain a discussion and report of our Society work and planed activities. Your interest and correspondence as to your problems is solicited.

PURPOSE, PLAN AND RESULTS OF COUNTY MEDICAL SOCIETY ACTIVITIES

What is a county medical society for- Obviously for the purpose of improving the work, results and education of its members.

How can these results be brought about? By a definite program which begins with the aims to be sought, systematizing the methods to be followed and a record of the results.

The plan of such action is no different from any plan that has for its purpose a constructive advancement. It is the same program as that which must be followed by the engineer, the architect, the builder, the chemist, the educator, the industrial promotor, the farmer, the mechanic—in fact, it is universal in its application to all human efforts.

First, then, what is the object of the plan of a County Medical Society program? Primarily, to better the work of the physician, to improve the conditions under which he performs that work, to achieve a maximum of results with a minimum of effort and to increase and broaden his opportunities for service.

This can be accomplished through patient and continued study, observation and research. The studying and the observing the physician must do himself. The opportunities for reasearch, investigation and comparison can be furnished by his society. He can then study through his society. He can compare through the same agency. His society can arrange for clinics and a systematic post-graduate study program. This program should consist of a well planned series of discussions and clinics which are related to each other and which effect directly the problems that the physician meets within his own county.

Included in this work should be a course of study in the history, present trend and future of scientific medicine. The physician should know, as is known in other professions, where his science comes from, the story of its development, the great principles and departures, and something of the story of its great leaders. He should be inspired and enlivened by the influence of those who have gone before him, by those who are living who are contributing something to the profession and he should be in touch and in true tune with the progress of the moment.

The responsibility of developing this program rests with the individual society. It will receive such encouragement and help as the State Society can offer, but the actual working out of programs must come from within the County Society itself.

In this program there should be included a discussion of the particular needs of the community which the members aim to serve. Problems differ in different localities. The County Society should be informed of the general health conditions of the county, where it is weak, where it is strong, where and how health conditions may be improved. It should seek, and will be so aided by the State Society, educators as are best fitted to enlighten the members as to their particular and peculiar problems.

One outstanding, almost universal, need in every locality is a higher and a more firmly established public confidence in scientific medicine. That can be brough about through the co-operation of the physicians and with the aid of their County Societies. To do that, it is necessary that all the physicians in the county seek to attain a uniformly high standard of efficiency. It means

that where one or two or three men, who have unjustly been criticised, are suffering from such criticisms, the society come to their help, either through a general defense or through such assistance as they may require in the way of scientific knowledge.

This program should contemplate the organization of a solid front against ineffective remedies and unproven theories in the treatment of human ills. It should extend beyond the confines of the society itself and reach out into the highways and byways of life. It should take in every phase of life which bears on human happiness where health and physical comfort are concerned. Through this program the physician should have the opportunity to study proposed and established legislation bearing upon health subjects and their application to his community.

Included in this program should be a continued and businesslike effort to increase the membership and general usefulness of the society to the county of which it is a part. The society should become a recognized and accepted authority on health requirements to which the public will gladly turn in time of need.

This program should promote the social relations between the physicians and their families. It should arrange for stated social activities, lectures on popular health subjects, health talks for children, in the factories and for the dissemination of such knowledge of health as may especially be required by the agrarian members of the community. It should lend its aid to the safety program of the county and state and work in close touch and harmony with established institutions which have a legitimate and constructive position in economic and social life.

It must be seen that wherever a county medical society can be made to function along the above lines, it must of necesity open up a larger and more lucrative field for the individual physician member. It will increase his opportunities to be of service and to make that service more effective. It will bring him in closer touch with the public, his patients and future patients. The net result aside from the general good that will acrue to the county, will be that scientific medicine will earn and receive a more hearty public support, which will reflect, in turn, upon every individual member of the county society.

A COUNTY SOCIETY METHOD FOR ACTION

Who is to accomplish these aims and objects? The officers, committees and the members operating.

Steps to be followed:

1. A general meeting (where possible) of all the members of the Society is called by the officers or Secretary. This meeting may be one of the regular meetings of the Society.

2. The County Society Secretary should present this project or a similar one for discussion and for direction as to what the membership wishes for one year.

3. The members should give authority to the program committees and other committees to carry out their desires.

4. The program committee and other committees should meet and organize work according to instructions to cover six month or more of activity.

5. The program committee develops a program of work by selecting definite and related subjects and speakers in so far as possible and as directed by the membership. (The committee should keep in mind that local talent should have a part in the year's activities by appearing on the program not less than twice in a series of twelve meetings. If a local society membership does not accept this responsibility, interest in the work of the Society will lag.

6. The Committee obtains the approval of speakers for programs as arranged. When approval is obtained, the membership should be notified at least two programs in advance and special notices should be sent out a few days in advance of each meeting. The membership should be notified at once as soon as speakers and plans are made so that the work of the committee and the work of the Society may become a reality in the minds of the members. This helps to keep the Society active, helps it to assume responsibility and helps it to progres. (The Committee, or the Society Secretary, may send out the notices. Some one must be responsible for this very important duty and see that it is done in due time and with emphasis.) The Committee should emphasize promptness in starting programs. Delays, tardiness and excuses destroy interest, and in consequence, results.

7. The Committee should work out a broad fellowship plan through which the members will use the informal salutation when meeting among themselves. John, George, Henry, Tom, Bill, etc., mean hospitality and friendship. Business organizations have used this form of address for a long time. It is worth trying.

8. The Secretary should write a full report of each meeting, noting the points that made the meeting successful, or those that caused it to be a failure. All special features should be noted which give or have given

life and interest to the programs and to other accomplishments. As soon as the reports are written, copies should be sent to The State Journal.

The Secretary should always keep the Michigan State Medical Society informed of the programs developed. The Michigan State Medical Society should be placed on the mailing list of the County Society so that meeting notices are received regularly.

All Secretaries are earnestly requested to try this plan in their respective societies and report progress to the local membership and to the State Society.

Let us act now this first month of the new year.

CALHOUN COUNTY MEDICAL SOCIETY ANNUAL REPORT

The Calhoun Countf Medical Society during the year 1924 has made progress and has written this progress in a report of exemplary character. An analysis of this report indicates clearly that results were accomplished by good organization with a good program committee and with the members of the Society assuming responsibility for their own society. "For the first time in several years have the members actively participated in the programs" has in part resulted for the increased activity, the increased interest and the increased attendance. An increase in the attendance of 65.8 per cent at the dinners and 35.5 per cent at the meetings means that work has been done, co-operation has been secured and every member has assumed his responsibility for his own interest and for his profession in general. Friendship is the motto read between the lines of this report:

THE COUNTY MEDICAL SOCIETY REPORTS FOR 1924 AND 1925

The statistical study of the County Medical Societies of the State of Michigan shows that reports by months have been submitted to the State Journal as follows:

January	5 counties reported
February	7 counties reported
March	8 counties reported
April	3 counties reported
May	2 counties reported
June	4 counties reported
July	5 counties reported
August	4 counties reported
September	1 county reported
October	2 counties reported
November	4 counties reported
December	6 counties reported
Total	51 reports from 20 counties.

Hougthon County	9 reports
Ionia-Mantcalm County	6 reports
Genesee County	5 reports
Calhoun County	5 reports
Gratiot-Isabella County	4 reports
Hillsdale County	3 reports
Ingham County	3 reports
St. Clair County	2 reports
Gogebic County	1 report
Bay County	1 report
Berrien County	1 report
Clinton County	1 report
Jackson County	1 report
Kalamafioo County	1 report
Kent County	1 report
Monroe County	1 report
Newakgo County	1 report
Sanilac County	1 report
St. Joseph County	1 report
Washtenaw County	1 report
Total	51 reports by 20 counties.

As County Medical Societies we are at the beginning of a new year—a new year for recording our accomplishments, informing our neighboring counties throughout the state of our activities, and our methods. We are at the place in our history where a record is important to the advancement and progress of medicine in each and every county. Report your meetings regularly and report what you are doing as an organization. The year just finished gives all the County Medical Societies, 56 in number, a total of only 51 reports made by only 20 counties. Houghton County, of the Northern Peninsula, leads all others by reporting nine different times and Ionia-Montcalm is second and leads the Southern Peninsula.

This record does not tell the whole story of what the County Medical Societies are doing. There are a number of societies in addition to those that have reported that have kept records and nearly every society has done something. In addition to this Wayne County, which holds regular weekly meetings and issued its own weekly bulletin is not included in the above record. We recognize the splendid accomplishments of this active society which is by many times the largest of all the County Societies. Little or much has been accomplished and written, in proportion to the interest in the profession, the friendship among the physicians and the intenseness of desire in the various societies. The year 1924 is finished and past. We are at the beginning of a new year. We have our profession with us and we intend to keep it ours. Our resolution for this year should be to record our activities, the activities of 56 County Societies representing 13 councilor districts and more than twenty-nine hundred doctors. Secretaries, we know you are busy in your profession, but we know that we cannot advance without a record. Immediately after your meetings or while at the meeting take a few minutes and write your story of what your society has done. Remember there are 55 other secretaries representing 55 other County So-

cieties doing the same thing and that the medical profession of these 55 counties wants to know what the physicians of the neighboring counties and counties throughout the state are doing. Other states may or may not have better records than ours just closed. We do not know. One thing is certain and that is that if we fulfill our resolution, do our duty to our profession in our State of Michigan, we will have the history of accomplishment to our credit when the last day of 1925 bids us goodnight. Let us be off.

CALHOUN COUNTY SECRETARY'S REPORT

In retrospect the year just brought to a close has been most satisfactory. The program committee, consisting of Doctors George Hartford, R. D. Sleight, and M. A. Mortenson, is to be especially congratulated on the varied type of program. For the first time in several years the members of the Society actively participated in the programs, case reports having been given by Doctors Sharp, George Hafford, E. Van Camp, Gertrude Johnson, L. V. Stegman, J. R. Jeffrey, Verity, Squier, Riley, Fraser, Colver, Serio, and Henderson. Dr Hubley gave a paper on Insulin. Papers were given by four out of twon doctors. Dr. C. J. Darling, of Ann Arbor, talked on "The Spleen"; Dr. Earl Smith, of Grand Rapids, gave a paper on the "Comparative Study of Dental and Dermatological Problems"; Dr. Dean Loree, of Ann Arbor, spoke of "Hospital Standardization"; and Dr. W. H. Marshall, of Flint, discussed "Tubersulosis in Children." Meetings were held at four different institutions in the county during the year. The Roosevelt American Legion Hospital, Battle Creek Sanitarium, Calhoun County Public Hospital, and the Sheldon Memorial Hospital of Albion, were visited in turn. On June 2nd, Doctors Sleight and Haughey entertained the members at the cottage of the former at Goguac Lake.

At the meeting a dinner preceded the regular session, with an attendance of 33, 38, 51, 20, 66, 34, 15, 60, and 46, while at the meetings the attendance was 42, 52, 51, 31, 79, 34, 17, 60, and 53. The average attendance at the dinners was 40.3 and at the meetings 46.5. Compared with last year, this is a decided improvement, the gain in attendance being 65.8 per cent for the dinners and 35.5 per cent for the meetings.

Nine new members have poined the Society during the past year, an dfive applications are awaiting action. Death claimed one active member of the Society, Dr. W. C. Henderson, who died March 27th; one honorary member, Dr. Leon M. Gillette, who died April 16th; and one former member, Dr. H. E. Lennon, of Bellevue, who died April 14th. Five memberships have beel allowed to lapse and the year closes with a total membership of 95.

Respectfully submitted,
Theodore L. Squier,
Secretary.

Deaths

Whereas, Providence has removed from our midst our esteemed and beloved friend and counselor, Dr. J. E. Scallon, an honored member of this Society and Dean of the Profession of the Copper Country; and,

Whereas, We feel keenly his loss, collectively and individually; therefore be it,

Resolved, That we, the members of the Houghton County Medical Society, extend our deepest sympathy and sorrow to the bereaved family; and be it further,

Resolved, That a copy of these resolutions be forwarded to the immediate family, and be it further,

Resolved, That these resolutions be spread upon the minutes of the Society, and a copy forwarded to the Michigan State Medical Society for publication.

A. D. ALDRICH,
ALFRED LA BINE,
SIMON LEVIN,
Committee.

Dr. Beverly Drake Harison died December 6, 1924, in the Battle Creek Sanitarium. Dr. Harrison was born in Canton, N. Y., May 8, 1855. He received his education in Bishop's College School, Lennoxville, Quebec; Trinity College School, Port

BEVEREY D. HARISON

Hope, Ontario; Trinity College (A. B.), Toronto; University of Toronto (M. B. 1882); University of Toronto (M. D. 1901); and University of Michigan (A. M. Hon. 1910). He began practice in Ontario and came to Saulte Ste Marie, Michigan, in 1888, where he remained until he moved to Detroit in

1906. He married Miss Josephine Lister, October 9, 1889.

Dr. Harison was a member of the American Medical Association, Michigan State Medical Society (ex-president), Wayne County Medical Society, American College of Physicians, Captain in the Medical Corps during the World War, the Detroit Army and Navy Club, and Sault Ste. Marie Country Club.

The Doctor was nationally known as the Father of Medical Legislation; he was the first and only Secretary of the Michigan State Medical Board of Registration in Medicine; he was at one time President of the State Hospital Board at Newberry; and he was organizer and secretary of the American Conference of Reciprocating State Medical Boards. His death will be a very great loss to the public as well as to the medical profession of this county.

Besides his widow, Mrs. Josephine Lister Harrison, he leaves one daughter, Miss Frances Lister Harison. The doctor was buried in the family lot in Toronto, Ontario.

Resolved, That the Michigan State Board of Registration in Medicine, in the death of Dr. Beverly Drake Harison, desires to record its appreciation and recognition of his twenty-five years of faithful and efficient service, not only to the Board, but also to the cause of higher and ideal qualifications for the practice of medicine in Michigan and in the other states of the Union.

As the administrator of the detail involving the standards of preliminary and medical education, his services have been most thorough and exact, and in addition, they have been creative, the result of which has been recognized by other boards and by other states. While the methods involved in these advances meant greatly increased labor and responsibility, this did not in the least affect Dr. Harison's attitude towards the ideal sought or the difficulties encountered.

Covering all of Dr. Harison's service in the efficient conduct of an educational office in its relation to the student body, to the medical profession and to the public, he brought to bear a very sound and mature judgment coupled with a high degree of intelligence and culture. With these attainments there was no avenue of least resistence in his activities. He stood ready at all times and under all circumstances to sacrifice time and health in carrying out efficiently the duties of his office. The history of the progress of medicine in Michigan would be incomplete without a record of Dr. Harison's services.

The Board feels that the above expression of appreciation very feebly voices its esteem and regret upon Dr. Harrison's death.

GEORGE L. LE FEVRE, President.
GUY L. CONNOR, Secretary.

County Society News

BAY COUNTY

The annual meeting was held Monday evening, December 8th at the Kawkawlin Community Church. The members were guests of the retiring president, Dr. Paul R. Urmston, at a venison dinner, prepared by the church ladies and served by the physicians' wives. About 40 members were present.

Talks were given by Dr. Urmston and Dr. Bishop, of Portland, Ore., formerly of Bay City.

The reports of officers and committees reviewed a very interesting year and showed the society to b in a prosprous condition.

The annual election gave the following results:

President, Dr. C. A. Traphagen; Vice-President, Dr. V. A. Dumond; Secretary-Treasurer, Dr. L. Fernald Foster; Medico Legal Com., Dr. A. W. Herrick.

Delegates to State Meeting:
Dr. C. H. Baker, Dr. C. A. Stewart.
Alternates:
Dr. M. Slattery, Dr. D. F. Smith.

L. Fernald Foster, Secretary.

GRATIOT-ISABELLA-CLARE COUNTY

The November meeting of the Gratiot-Isabella-Clare County Medical Society was held in the Alma City Hall, Thursday evening, November 13. One out of town speaker was Dr. E. L. Eggleston of Battle Creek, who spoke on Diseases of the Upper Right Quadrant. The doctor talked for two hours from slides made from cases he had seen, which made the subject very interesting. There were many expressions afterward from members that this was a very profitable meeting.

The annual business meeting of the Gratiot-Isabella-Clare Medical Society was held in Alma. December 12th. The annual report of the Secretary was read and accepted, after which the following were elected officers for 1925:

President, C. D. Pullen, Mt. Pleasant; Vice-President, M. J. Budge, Ithaca; Secretary-Treasurer, E. M. Highfield, Riverdale.

The members and their wives then met at the Wright House for the annual banquet. Twenty-nine sat down to prettily decorated tables. After all had enjoyed the eats, President Smith introduced President H. M. Crooks of Alma College, who gave an exceedingly interesting talk, which would have to be heard to be appreciated.

E. M. Highfield, Secretary.

KALAMAZOO-ALLEGAN-VAN BUREN COUNTIES

Rport of the Budget Committee:

Your committee, respectfully submits the following estimated budget for 1925:

State Society Dues	$1,200.00
Guests	75.00
Postage and Stationary	50.00
Bulletins	150.00
Telephone and Telegraph	75.00
Flowers	25.00
Lights	6.00
Janitor and Cleaning	50.00
Stenographer	50.00
Sundries	44.00
Total	$1,725.00

F. C. Penoyer,
C. L. Bennett,
Malcolm Smith.

Secretary's Report:

The annual meeting of the Kalamazoo Academy of Medicine marks the completion of forty-one years of activity as an incorporated society. In this connection, it might be well to note that of the original csharter members of the Academy, Dr. C. H. McKain of Vicksburg is the only surviving member. As we all know, Dr. McKain is still very actively engaged in the practice of medicine and during all these years he has retained his membership and interest in the academy. We believe Wr. McKain is to be congratulated and our best wishes are extended to him.

For the first time in a number of years the number of meetings held for the year has been limited to ten. This reduction has resulted because of the monthly meetings of the various hospital staffs. What results the multiplying of medical meetings will ultimately have upon the County Society is a debated question. But, it should be remembered that the academy has a definite position to fill and a definite functino to perform, and that no other organization can take its place. Let no oen shirk his duty as regards his membership in the Academy and attendance at its meetings.

Of the ten meetings held during the year, eight were held in Kalamazoo, one in South Haven and one in Vicksburg. We believe it a wise plan for a somewhat similar plan to be followed in the future.

There were three clinics held during the year. All of these were well attendd.

It is quite apparent that this type of meeting is popular with the membership of the academy as a whole and the clinical program committee is to be commended for their work in arranging these clinics.

Our Program Committee also desires its share of approbation for its work during the year. It has succeeded uniformly in arranging scientific programs of intense practical interest. We cannot help but repeat what has been said often enough, that those who fail to avail themselves of the opportunities extended at these meetings miss a most excellent post graduate course in medicine.

During th year the academy mourned the loss of two of its most faithful and honored members—Dr. W. A. Stone of Kalamazoo and Dr. G. D. Carnes of South Haven. Both Dr. Stone and Dr. Carnes at one time during theil long membership in the academy served as its president.

Having completed our three years terms of office, your Secretary's swan song is more or less in order. We should like to take the opportunity at this time to thank the various officers and members for their co-operation. Our relations have been most pleasant and we, at least, have profited thereby.

As we retire, our one regret is that apparently all attempts to arouse an interest in increased attendance have been unavailing. Our figures show that attendance figures now average practically the same as those of three years ago. We believe this is the biggest problem the academy ha sto face and our hope is that some soultion may be found speedily.

IONIA-MONTCALM COUNTY

The annual meeting of the Ionia-Montcalm Medical Society was held Thursday evening, December 11th, at the Ionia State Hospital, Ionia, Mich.

Through the courtesy of Robert H. Haskell twenty members were given an excellent dinner which was followed by a clinical program, presented by the Medical Staff of the hospital.

The meeting was called to order after dinner by President A. J. Bower, and the following officers elected for the coming year:

President, Dr. Jos. T. Pinkham, Belding, Mich; vice-president, Dr. Isaac S. Lilly, Stanton, Mich; secretary and Treasurer, Dr. F. A. Johnson, Greenville, Mich.; delegates to State Society, Dr. C. H. Peabody, Lake Odessa, Mich.; alternate, Dr. Perry C. Robertson, Ionia, Mich.

It was voted unanimously to increase the county dues from three dollars to four dollars a year, which with the state dues of ten dollars makes the dues a total of fourteen dollars a year.

Following the election of officers Dr. Sedgwick presented a paper, "The Use of Foreign Proteid Injections in Cornea Ulcers," which was well received.

Three cases were reported and the patients were presente dto the society for examination, which demonstrated the perfect results secured by the treatments. F. A. JOHNSON, Secretary.

HOUGHTON COUNTY

The Houghton County Medical Society held its regular monthly meeting at the Douglas House, Tuesday, December 2, with 14 members present.

The first paper of the evening was "Some Aspects of Antitoxin Administration," by Dr. A. D. Aldrich of Houghton, he having had a diphtheria epidemic at Winona, Mich., during the past summer, having a total of 36 cases and only one death. His personal experience of antitoxin were especially interesting and show the necessity of giving larger immunizing doses. This paper was fully discussed by all present.

The next paper, "Typhoid Immunization," was read by Dr. M. D. Roberts. Dr. Roberts has given several hundred shots of United States army typhoid vaccine to the Naval Reserves of this district. He gave a very full discussion of the technic, reaction and immunity which this vaccine conferred. This paper was also fully discussed by all present.

One of our oldest and most highly respected members, Dean of the St. Joseph's Hospital Staff, and the oldest member of the medical profession in Houghton County, has been removed by death, November 9th. Dr. Scallon was always a very active man in the Society and medical circles of th's district, and he will be greatly missed for his counsel and advice. A copy of the resolutions passed by the Houghton County Medical Society are inclosed.

The next regular monthly meeting of the Hougton County Medical Society will be held in Calumet at which time the annual election of officers takes place. All members are urged to be present.

Yours very truly,
G. C. STEWART, Secretary.

OAKLAND COUNTY

Oakland County Medical Society, held a dinner meeting at Caribou Inn, Clarkston, Mich., December 12th, 6:30 p. m., at which time we were addressed by Dr. F. B. Walker, Councillor for our district and by our new executive secretary. Dr. Walker told us of how our money is being spent, also of future plans as outlined by council of the Society.

The Society went on record as favoring an increase in dues and an aggressive legislative policy.

Leon F. Cobb, Secretary.

Among the Books

A Review and Frank Appraisal of Medical Books That are Proffered to the Profession by Publishers.

A TEXT-BOOK OF PATHOLOGL: William G. MacCallum, M. D. Third edition, thoroughly revised. Octavo volue of 1162 pages with 575 original illustrations. Cloth, $10.00 net. W. B. Saunders Co., Philadelphia and London.

In this book, which represents in its order and contents the course in Pathology given in the

second year to the students of the College of Physicians and Surgeons, an effort has been made to discuss the general principles of Pathology as illustrated by a study of the commoner and more important diseases.

It is therefore in no sense intended as a book of reference. No attempt has been made to describe systematically all the diseased conditions which may occur in each organ, and for that reason there is no division into general and special pathology. Instead the whole is constructed upon the idea that all pathological disturbances are the result of some form of injury, or of the immediate or more remote reactions of the body to injury. It has been found possible to carry out this conception quite logically except when, as in the case of tumors, we are quite ignorant of the causes of the disease. For that reason, after a few chapters devoted to the general working principles with illustrations from the most common conditions, the rest of the book is divided into chapters which deal with various types of injury and their immediate and remote effects. The discussion of tumors necessarily forms a separate part, since they seem to be so little controlled by the laws which govern other pathological processes.

The whole book is planned therefore to discuss as far as possible upon the basis of etiology, and the usual subdivision of the material according to its anatomical distribution has not been employed. Nevertheless the index is so arranged as to facilitate reference to lesions of the heart, lungs, etc.

Partly bcause of lack of space, but chiefly because they are admirably treated in great detail in books easil yaccessible to students, several whole sections usually included in books on pathology have been omitted. This is true of the relations of heredity to disease, of the biology of bacteria and other parasites, of malformations, and of many diseases of the nervous system. The whole subject of resistance and immunity is touched upon only in the briefest way. Nevertheless, even though such subjects are intentionally omitted, it is realized that criticism may well be offered when it is found that the diseases chosen to illustrate the principles of pathology do not include many important affections, such as multiple sclerosis, progressive muscular atrophy, rabies, yellow fever, and a host of others.

In discussing the prominent types of injury an attempt has been made to give an impression of the far-reaching interdependence of pathological conditions by making a continuous story of the whole with numerous digressions for the description of special lesions or their causes. Several chapters ared evoted to the results of obstruction of the flow of contents of hollow organs, and while it may seem that this i sa rather forced arrangement the type of injury is one whose effects depend in each instance upon certain common principles.

A constant effort has been made to speak of the disturbances of function and of chemical interchange in the course of disease, as far as that was possible, and even to describe symptoms. If this makes the book seem like a treatise on clinical medicine, it is only because pathology and clinical medicine are, afte rall, the same thing viewed fros slightly different angles.

References to the literature given with each chapter have been chosen, as far as possible, to direct the student to readable and comprehensive papers which review the subject and give further and moer complete references.

PHYSICAL DIAGNOSIS: W. D. Rose, M. D. Price $8.50. C. V. Mosby Co., St. Louis, Mo.

This is a fourth edition of a satisfactory text that rates well with other discussions on physical diagnosis. Well written, clearly illustrated and arranged for quick reference, it serves satisfactorily in presenting all essentials.

THE CHILD'S HEALTH LIBRARY: R. K. Haas, Inc., 218 W. 40 St., New York.

The books were written by a group of prominent pediatrists and social workers in New York City, and are prefaced with an Introduction by Dr. Haven Emerson.

The purpose of the series is to teach parents how to co-operate with the physician in promoting and preserving the health of the child. We believe that no such comprehensive survey of the entire subject of Child Health has ever been prepared for the benefit of parents. ,

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DISEASES OF THE HEART: Dr. Henri Vayuez, Professor of the Faculty of Medicine of Paris. Octavo volume of 743 pages, illustrated. Cloth, $8.50 net. W. B. Saunders Co., Philadelphia and London.

This text, translated, was written by the foremost cardiologist of France. It is rich in radioscopic studies. It llill be appreciated by American Clinicians.

THE PRACTICE OF PEDIATRICE: Charles G. Kerley, M. D. and Gaylord W. Graves, M. D. Third edition, revised and reset. Octavo of 922 pages, 150 illustrations. Cloth $9.00 net. W. B. Saunders Co., Philadelphia and London.

Reffritten, cith additional material and revised to date, this text becomes a satisfactory guide and teacher as uell as asthority.

A LABORATORY GUIDE IN HISTORY: Leslie B. Arey, Ph. D. Second Edition, revised. 12 mo. of 96 pages. Cloth, $1.25 net. W. B. Saunders Co., Philadelphia and London.

Received and commended.

MANUAL OF PSYCHIATRY: Paul E. Bowers, M. D., Examiner in Lunacy. Octavo volume of 365 pages. Cloth $3.50 net. W. B. Saunders Co., Philadelphia.

We find in thi stext a comprehensive outline of the field of psychiatry. It is set forth in an authentic manner and is void of theoretical conjections or speculationh.

ABT'S PEDIATRICS: Edited by Isaac A. Abt, M. D. Set complete in eight octavo volumes totalling 8,000 pages with 1,500 illustrations, and separate Index Volume free. Volume V containing 865 pages with 373 illustrations. Cloth, $10.00 per volume. W. B. Saunders Co., Philadelphia and Londan.

This volume includes: Diseases of the face and jafs, orthopedics, paralyses, and the infectious diseases. In every detail it formulates the most modern informatio nand authority upon these subjects. As we have previously commented, this series is the peer of pediatrics of the present day.

THE MEDICAL CLINICS OF NORTH AMERICA. Octavo of 324 pages and 29 illustrations. Paper $12.00; Cloth $16.00 net. W. B. Saunders Co., Philadelphia and London.

,Of established interest and standard.

MANUAL OF OBSTETRICS: John Cooke Hirst, M. D. Second Edition Reset. 12 mo. of 551 pages with 229 illustrations. Cloth, $4.50 net. W. B. Saunders Co., Philadelphia and London.

This manual is a companion to the author's manual of gynecology. It presents the subject clearly and with unprofitable discussion omitted. The plan of treatment and technic is baised on experience and tested practice. It is a manual that emphasizes the need of modern obstetrics and is authoritative in detail.

The Journal
OF THE
Michigan State Medical Society
ISSUED MONTHLY UNDER THE DIRECTION OF THE COUNCIL

Vol. XXIV. GRAND RAPIDS, MICH., FEBRUARY, 1925 No. 2

Original Articles

STERILIZATION IN THE FEEBLE-MINDED*

H. E. RANDALL, M. D.
FLINT, MICH.

A large share of the taxes and energy of the United States is spent on degenerates, the feeble minded, and the mental defectives. Enlargements and additions of our jails, penitentiaries, reformatories, poor houses, and contributions to charitable agencies and homes can hardly take care of the increasing numbers of our weaklings. There are at least more than 300,000 recognized feeble minded in the United States. Lately the offspring of our immigration have shown an increase of feeble minded. Fortunately, the idiot is usually the end of his line.

The serious economic and social question is the propagation of a class between the idiot and the normal human being. If our marriage laws do not permit children of ten and twelve years of age to marry, why in the name of reason should the law permit them to marry when that is their mental age? I think enough data has now been collected to demonstrate that feeble mindedness is hereditary. It may be accepted as true that wooden legs are not hereditary, but that wooden heads are.

Of course, it must be borne in mind that children may become feeble minded through sickness, such as severe infectious diseases, or traumatic brain injuries or birth injuries. The statement of Tregold that "I have never seen the brain of an idiot, of a lower or even a medium grade imbecile which could be regarded as normal upon careful examination," may take an extreme view as the underlying brain condition is an imperfect or arrested development of the cortical cells of the brain. Gross changes may be present in the brain without corresponding mental defects. We know that mental defects are incurable and that the fourth cortical layer is the earliest to mature and the last to suffer destruction in the dementias. The second layer is thinner in lower animals and in feeble minded than in normal and the first to show changes in the dementias. The supra granular layer is the characteristic human cortical layer.

Now as to heredity: The best known family is that of the Jukes. A family that has cost one state several millions of dollars. Of the 709 of the 1,200 in the family that could be traced, 140 had been imprisoned for crime, 280 have been paupers or dependents on public support and charity, and a large majority were of low physical and moral standard.

Ida Tarbell in her book, "In the Footsteps of Lincoln," leaves no doubt that Abraham Lincoln came of an exceedingly good line that bore the name and physical and racial characteristics so well known in our martyred president, and removes the odium from his father that has been attached by early historians to his name.

Of the 102 Pilgrims in the Mayflower, only 23 are known, but they were the ancestors of five presidents, of Root, of Emerson, of Longfellow, Leonard Wood and others. Heredity explains why, of the first 46 names in the American Hall of Fame, 26 of them had 1 to 3 relatives of national reputation. Heredity explains why the Jonathan Edwards family of 1,400 in various countries has had 1,400 social servants, many of international reputation. A feeble minded family of 15,000 will have nearly 15,000 social scourages. Heredity makes plain why one line of the Kallikak family, investigated by Goodard, had 36 who were illegitimate, 33 immoral, mostly prostitutes, 142 were feeble minded, while only 46 were normal, and the other union with a normal woman had a hereditary line of 496, nearly all of whom were owners of land and respectable citizens.

A marriage of a normal man with a feeble minded woman may result in all normal children, but it will also carry the taint in the germ plasma, according to the Mendel Law, and will result in feeble mindedness somewhere in the grandchildren and so on to the last generation of time.

"The high grade imbecile, the feeble minded, as he is called in England, or the moron, as he is called in the United States, is one who is capable of earning a living under favorable circumstances and conditions, but is incapable

*Read before the Section on Surgery, M. S. M. S., Mt. Clemens Annual Meeting, September, 1924.

from mental defects existing from birth, or from early of age, of competing on equal terms with his normal fellows, or of managing himself or his affairs with ordinary prudence." This is the definition of the Royal College of England. Goddard says at least 66 per cent of feeble mindedness is hereditary. Probably 80 per cent is a truer figure. (Goddard, Davenport and Tregold.)

Civilization is getting to be a strenuous affair and until we have methods of changing the nature of men or circumventing heredity, the greatest kindness we can do to these unfortunates is to prevent the propagation of their kind and relieve posterity of the burden of their support. We have recognized heredity as the most important factor in all animals below man, but we have steadfastly refused to see that these same identical laws apply to mankind.

Allow me to repeat, that our jails, poor houses and state institutions are now crowded with the feeble minded. That heredity is the controlling factor and that environment is but another name for possibility or opportunity and it is up to the medical profession to prevent the reproduction (breeding) of human stock bearing serious mental defects. The social workers of the various state homes for feeble minded can furnish you with a list of many of the families and the information they can give is startling. One family in Michigan started in Mt. Clemens, which is now being investigated, seems likely to eclipse the record of any feeble minded family heretofore recorded.

The legislature of Michigan in the session of 1923 passed Act No. 285 authorizing the sterilization of mentally defective persons. Summarized as follows: After defining the words mentally defective to include idiots, imbeciles and feeble minded, the act authorized a court of competent jurisdiction to order such treatment by X-ray, or the operation of vasectomy or salpingectomy, or such other treatment as may be least dangerous to life to render said defective incapable of procreation on the application of the mother, husband, wife, brother, sister, child, or next of kin of the defective or any of the following persons resident in the county in which the adjudication was made: the prosecuting attorney, sheriff or any peace officer, or the board of control of any state penal, corrective, or charitable institution, if under control of the state. The judge of probate shall determine a proper person to make report and application, or on application of the guardian and an order for sterilization may be made at the time when the application is made. The court fixes a date for the hearing and examination by three reputable physicians into the mental condition and their opinion as to the question whether adjudged defective should be dealt with under the terms of the act. A provision is made in the act for a jury of six free holders if deemed necessary by court, or if requested by the defective himself, guardian or relative. The act specifically states that it *shall apply only to cases of inherited tendency to mental defectiveness* and the patient must be over ten years of age.

I believe the Michigan state legislature has made a move in the right direction and in carrying out this work I have performed the operation of sterilization by the following methods: In the male an incision is made in the scrotum down the spermatic cord, the vas-deferens is separated and excised for at least an inch and a half. The upper or proximal end is allowed to retract, while the lower is stitched to the subcutaneous tissue of the scrotum and the incision is closed. Remember, there are 60.000 spermatozoons per cubic millimeter. (Thorek.)

In the female an incision is made to the right or left of the median line, the uterus is drawn up to the opening of the incision by a single tenaculum or uterus holder. A chromic catgut suture is applied around the Fallopian tube one inch from its insertion in to the uterus. The Fallopian tube is pulled up and, with scissors an oval area is clipped which is about one-half inch long and one-fourth inch wide, down into the muscular tissue of the uterus. Sometimes the Fallopian tube, like a small artery, is seen, a thumb forcep is applied and a further portion of the tube is removed and the incision of uterus is closed with small chromic catgut. The fallopian tube is again *cut off* proximal to first suture applied. A small pocket is made in the anterior of the broad ligament. The needle and catgut still attached to the tube, is introduced to bottom of pocket of the anterior leaf of the broad ligament and all raw peritoneal surface is closed to prevent adhesions. In all cases healing has been by first intention and there is no possibility of their ever becoming pregnant. *No organ is removed in either male or female.*

To diverge, the vasoligation of Steinach was done at two points, one at the end of epididymis, and the other between the epididymis and testicle, the theory being that the intestitial (Leydig) cells would then receive the entire blood and rejuvenate and turn the old man into a young buck. This he called the autoplastic treatment of old age. (Thorek). After we have learned to transplant skin and bone successfully in all cases there is still time to take up the grafting of highly deferentiated tissues.

My only comment on these operations, that no one seems to have observed or recorded any rejuvenation when the White operation (Vasectomy) was the rage 25 years ago for hyper-

trophy of the prostate. Vasectomy, we believe, has no effect on sex function outside of the loss of power of reproduction. An irritable prostate in an old man offers much more of promise in the field of mischief.

As a nation we have delicate experimental instruments for the measurement of length, of mass, capacity, time, wave length, co-efficient of expansion and melting points. We provide against forest fires, mine and factory explosions, preserve bird life, destroy insects and preserve food and shelter supply, but we do not investigate why 20,000 dementia praecox cases enter our insane asylums each year, costing the rest of the population a dollar per head and the entrances are still increasing needing institutional care; while our jails and penitentiaries are full and *charity increaseth.*

It is, I believe, the duty of the medical profession to study and prevent the increase on this earth of the criminal, the insane, the social unfit, the feeble minded and the sociopathological. Let us apply the same humanitarian rules to human beings that we now apply to the lower animals.

It is not the environments, but heredity, that counts most. Our surroundings in America are better than any country in the world, and our standard of living is higher, but we have more crime.

The medical profession has lengthened human life to an average of 58, but also remember that in the advance of medicine we are not only saving the fit, but also the unfit.

"Men do not gather grapes of thorns, or figs of thistle."

"HYPOTHYROIDISM AND ITS RELATIONSHIP TO CHLOROTIC ANAEMIA*"

L. M. WARFIELD, A. B., M. D.
I. W. GREENE, A. B., M. D.
ANN ARBOR, MICH.

In the last decade the problems of the medical man have quite largely turned to those of metabolism, and especially to the influence of the ductless glands upon the various metabolic functions.

The two glands concerning which we have secured somewhat accurate information are the pancreas and the thyroid. Our studies and interest in the thyroid gland have, to a great extent, been upon conditions in which there is an over-activity, or at least an abnormal function of this gland. Many of the problems of hyperthyroidism have been at least partially arrived at. At least, we can say that there has been a tremendous amount of work done in attempting to solve these problems.

A phase of thyroid disease, which we believe, has not been sufficiently appreciated or studied, is that of hyperthyroidism. Clinicians have, for a good many years, recognized two clinical types of hypothyroidism, that is, myxedema and cretinism. In typical cases of either group the clinical picture is so evident that the experienced medical man should make the diagnosis without the aid of any laboratory procedure.

In addition to these two easily recognizable groups we feel that there is another considerable sized group which is frequently overlooked. Probably because the members of this group exhibit only in minor degrees those manifestations usually associated in our mind with hypothyroidism. Most of such individuals complain of only minor degrees of ill health, such as inability to do a full day's work, tiring easily, lack of resistance to minor acute infections and lack of ambition. And in female patients, which comprise the greater number, there is often a disturbance of the menstrual function. This most often takes the form of infrequent and scanty periods, although in young women, excessive flowing is not unusual. Such patients are rather often diagnosed as belonging to one of the functional neurosis, while others are suspected of being victims of our old standby, focal infection, and have had many innocent teeth and tonsils removed, and not infrequently, have had pelvic operations in the hope of securing better health. Lawrence[1] sums it up very well when he states, "the history of the hypothyroid patient has only one characteristic feature: sub-efficiency of the bodily machine. Whatever the symptoms for which the patient seeks relief there is always in the story a background of inefficiency, usually physical, and, in the cases of long duration, mental as well."

Physical examination may reveal very little. Generally there is a moderate or slight degree of thyroid enlargement with usually a rather firm, non-vascular gland. If there is any coarseness and dryness of the skin and hair it is usually of a rather minor degree, especially in the younger individuals. The pulse is not necessarily slow, often being somewhat above normal when moving about, but if such patients lie down for half an hour the pulse will show a greater slowing than in normal individuals.

We have been particularly interested in one aspect of this problem, namely the relation of a lowered metabolic rate, presumably due to hypothyroidism of minor degree, to chlorosis, or rather to a chlorotic type of anaemia.

Chlorosis as a distinct entity has been recognized for a good many years. Ashwell[2] in 1836 gave a rather comprehensive description of the disease, of course, without the typical blood findings. From that time on it has been the subject of much study and speculation. Of

*From the Department of Internal Medicine, University of Michigan Medical School.

late years it has aroused less interest, largely due to the fact that the number of cases has apparently decreased considerably. This has been shown by Cabot[3] as regards America, Shauman[4] in Sweden, Deneke[5] in Germany, and, in a comprehensive study by Cambell[6] in England. That this is true as regards the severe types, there can be no question. Quite possibly the less severe forms are often overlooked, or in many cases put in the group of secondary anaemias. The milder cases are, of course, usually treated by their family physician, and often they do not enter into hospital statistics.

We have in the last two years studied a small group of cases, which we classified as having chlorosis, or at least a chlorotic type of anaemia, taking as our diagnostic criteria the fact that with varying degrees of ill health, the patient's blood showed a normal, or practically normal number of red blood cells, with a definitely low color index, and in whom there was no demonstrable factor which might produce a secondary anaemia. No attempt was made to determine the blood volume or the specific gravity of the blood. The counts were made in the usual way, the hemoglobin usually being determined with the Sahli apparatus, which was, however, frequently checked up for accuracy. The basal metabolic rate determinations were done on a Roth modification of the Benedict portable machine, and were done by a very accurate technician.

The group of cases which we have classified as chlorosis have, with one or two exceptions, shown some degree of lowered metabolic rate, which we believe to be largely due to hypothyroidism. Some of the cases we shall mention show rather minor degrees of disturbance. We feel, however, that these are perhaps the most important as they are more likely to be overlooked.

The etiology of chlorosis has long been a subject of speculation and many theories have been put forward largely without experimental data and we would not wish to give the impression that we think that hypothyroidism is the only cause of chlorosis, but only wish to draw attention to the fact that they are not infrequently associated, and feel that in studying such individuals such an association should be looked for. This is undoubtedly of greater importance in the goiterous district in which we live than it would be in some other sections of the country where thyroid disease is less prevalent.

CASE REPORTS

Case No. 1. Student nurse, age 19. She was first seen February 16, 1923, at which time her chief complaint was that of tiring easily and paleness. She stated that she has always been pale and tired rather easily, but for the last few months, both complaints have been more severe and she found it very difficult to carry on her duties. At times she was very giddy or faint. Her appetite was fairly good, she had no unusual craving, but did not eat very freely of vegetables or fats. The Cardio Respiratory and Genito Urinary history were negative. Her menstrual periods were somewhat excessive. Under family history she stated that several paternal relatives were pale and have been told that they had anaemia.

Physical examination showed a well-developed young woman, slightly underweight, the skin was pale, with almost a greenish tinge, the mucous membrane were all pale. There was a small symmetrical, rather firm enlargement of the thyroid, with no thrills or bruits. The heart, lungs, abdomen, and extremities were negative. The urine and blood Wasserman were negative as was an X-ray examination of the chest.

Blood examination showed the hemoglobin 43 per cent, the red blood cells, 4,850,000, the white blood cells 8,400, the differential count was normal. The red blood cells were acromatic, showing moderate variations in the size and shape with a very few irregular poikilocytes. No blasts were observed, and the platelets were about normal.

The Basal Metabolic rate examination taken at this time was —17 3/10 per cent, following this the patient was given thyroid extract, gr. 2, b.i.d., and this was continued with a few interruptions over the next 6 months, being checked by the Basal Metabolic rate determination at two to four week intervals, the various readings being —13 9/10 per cent, —13 per cent, —12½ per cent, —14 per cent, —12½ per cent, and on December 28, 1923, approximately 8 months after beginning treatment, —5½ per cent.

The blood findings taken at about monthly intervals, showed a steady improvement. March 5, 1923, the hemoglobin was 55 per cent, the red blood cells 4,750,000, the white blood cells 7,000. April 24, 1923, the hemoglobin was 67 per cent, the red blood cells 5,100,000, the white blood cells 8,000, the differential was normal. May 20, 1923, the hemoglobin was 70 per cent, the red blood cells 5,000,000, the white blood cells 6,900. June 24, 1923, the hemoglobin was 75 per cent, November 11, 1923, the hemoglobin was 80 per cent, the blood cells 4,750,000, the white blood cells 7,500.

During this period of improvement, with the exception of the first month, the patient was able to carry on her usual duties and received no other medication than the thyroid extract. At that time the thyroid extract was discontinued and 6 months later she returned again complaining of rather similar symptoms. Explanation at that time showed the hemoglobin to be 50 per cent, the red blood cells 5,000,000, the white blood cells 7,300. The Basal Metabolic rate was —14 per cent. She was again placed on thyroid extract and began to improve but passed out of our observation.

This case showed over a long period of time, a rather constant relationship between the Basal Metabolic rate and the blood findings. She did not respond as rapidly to thyroid extract as one might wish, yet we feel that there was considerable benefit secured from its use, and a definite relapse when it was discontinued.

Case No. 2. A young woman, 28 years old, who was first seen October 18, 1922, complaining of increase in weight, abnormal appetite, pain and swelling in the arms and legs, frequency of urination and incontinence. One year previous to admission the patient had a left oophorectomy and bilateral salpingectomy. In the four months following operation she gained 50 pounds in weight, and during this time she had headaches and nausea. She was told that her systolic blood pressure was 170 and was given ovarian extract which re-

lieved some of her symptoms. She lost the vision in one eye, which however returned under potassium iodide medications.

Examination showed moderate obesity with a habitus slightly suggestive of hypopituitarism. The skin was pale and pasty, and the mucous membranes appeared pale. The pupils reacted to light and accommodation. The heart, lungs, and abdomen were negative. The blood and spinal fluid Wassermans were negative.

On October 10, 1922, the hemoglobin was 46 per cent, the red blood cells 4,820,000, the white blood cells, 7,500. The differential was not abnormal. Six days later, the hemoglobin was 40 per cent, the red blood cells 4,580,000, the white blood cells 4,700. At this time the Basal Metabolic rate was —18.5 per cent, reported a few days later it was —15.5 per cent. She was given thyroid extract, gr. 1½ t.i.d., and on November 13, 1923, the Basal Metabolic rate had reached +16 per cent,, and during this time the hemoglobin had steadily risen to 66 per cent, with the red and white blood cells remaining at essentially the same point. How large a factor the thyroid extract was in reducing her anaemia we can not say, as she also received Blaud pills, and other medications.

Case No. 3. A student nurse, 19, was first seen February 1, 1923, with a chief complaint of a pain in the right side of the abdomen. The cause of this pain was not definitely settled, and it passed away in a few days. It was noted at the time of examination that in addition to the finding of tenderness over McBurneys point, there were some findings of general interest. The girl seemed a little dull mentally, and had not done her work well. She complained of tiring easily, and being sleepy. The skin was pale and pasty, and there was some hypertrycosis. The thyroid showed a moderate firm enlargement.

The Basal Metabolic rate was —16.5 per cent, the patient was given thyroid extract gr. 2, b.i.d., and began to show immediate improvement in appearance and strength. The possibility of the patient having a chlorotic type of anaemia was not at first appreciated and the blood was not examined until April 10, 1923, about two months after beginning treatment. At this time the hemoglobin was 70 per cent, the red blood cells 4,990,000, the white blood cells 8,000, the Basal Metabolic rate was —9.5 per cent. May 23, 1923, the hemoglobin was 83 per cent, the red blood cells 5,100,000, the white blood cells 6,800, and the Basal Metabolic rate was —5 per cent.

Case IV. A female clerical worker, age 25, was first seen April 2, 1923. Her complaints were also paleness and weakness. Physical examination was negative, apart from a somewhat pale skin and mucous membranes. The Basal Metabolic rate was —9 per cent, the white blood cells 6,300, the red blood cells 4,930,000, the hemoglobin was 65 per cent. Thyroid extract gr. 2, b.i.d., was given the patient, this she did not tolerate very well. On April 30, 1923, the Basal Metabolic rate was +4 per cent. The thyroid extract was taken intermittently from this time on. On June 17, 1923, the hemoglobin was 85 per cent, the red blood cells 5,200,000, the white blood cells 6,600. She was not seen again until September 22, 1923, when she returned complaining of her old symptoms. At the time that she returned her Basal Metabolic rate was —17 per cent, the hemoglobin was 71 per cent, the red blood cells 4,980,000.

The thyroid medication was again begun and three months later the Basal Metabolic rate was —9 per cent. the hemoglobin was 80 per cent, and the red blood cells were 4,860,000.

Case 5. A student nurse, age 20. She was first seen because of enlargement of her neck and complaints of weakness. Her history was negative. Examination showed a dry, coarse skin, and pale mucous membranes. There was a rather firm colloid goitre, with small adenomas. The basal metabolic rate was —17½ per cent, the hemoglobin was 65 per cent, the red blood cells 4,650,000. Under thyroid extract gr. 2, b.i.d., the patient showed subjective improvement, and on August 5, 1923, two months later, the hemoglobin was 81 per cent, the red blood cells 5,100,000, and the white blood cells 7,500.

Case 6. Student nurse, age 22, whose chief complaint was loss of weight. She had lost 20 pounds in the last year and tired rather easily. Her menstrual periods had been too frequent, and somewhat excessive in amount. Physical examination was negative, as was the chest X-ray.

The Basal Metabolic rate was —11½ per cent, the hemoglobin was 75 per cent, the red blood cens 4,500,000, the white blood cells 8000. She was given thyroid extract gr. 1, b.i.d., for two weeks, then as the complaints had disappeared treatment was discontinued and the case was not followed.

Case 7. Female, age 22, University student, was first seen November 13, 1923. Her chief complaint was that of weakness and paleness and pain in the legs. For three or four years she had tired easily, and found it difficult to apply herself to her work, and had been pale during most of this time. Lately she had had considerable pain in the legs. The past history was negative, as was the family history.

Physical examination showed the patient somewhat overweight, and rather peculiar mentally, the skin was very pale and pasty, with a slightly greenish hue, the mucous membrane was also pale. There was no thyroid enlargement. The heart showed a functional systolic murmur. The lungs and abdomen were negative. The hemoglobin was 55 per cent, the red blood cells 4,000,000, the white blood cells 11,000, the platelets were abundant and there was moderate acromia. One month later she was again seen, the hemoglobin was 45 per cent, the red blood cells 5,100,000, the white blood cells 8,600, the Basal Metabolic rate was —10.5 per cent. Thyroid extract gr. 2, b.i.d., was started and on January 16, 1924, the hemoglobin was 60 per cent. The patient evidently did not tolerate the treatment very well, the pulse was somewhat rapid, the Basal Metabolic rate had gone up to +5 per cent. The patient was also somewhat nervous. The thyroid extract was discontinued and Iodo Starine tablets, one once a day, were substituted, along with Blaud pills.

This case while showing a rather typical chlorosis, did not as far as her Basal Metabolic rate determination would indicate, belong very definitely to the hypothyroid type. Her general appearance, however, was more suggestive of hypothyroidism than most of the other cases noted.

Chlorosis is not generally a disease thought to affect the male sex. We have, however, one case showing a definite chlorotic type of anaemia.

Case 8. A physician, age 43, whose chief complaint was weakness and some gain in weight. For years his strength had been poor, particularly in the morning. He also felt very nervous. The past history was that of influenza in 1918, appendectomy 7 years ago, and catarrhal jaundice 6 months ago. The physical examination was essentially negative. The Basal Metabolic rate was —17 per cent, the red blood cells 3,150,000, the white blood cells 3,100, the hemoglobin was 35 per cent. He had been told previously that the Basal Metabolic rate determination was —30 per cent.

DISCUSSION

As suggested before, the etiology of chlorosis has been the object of much speculation. Faulty hygiene, tight lacing, and many other factors have all had their proponents. There has, however, remained two points that all authors have accentuated, and that is the age and sex factor, occurring as it usually does in young women early in the menstrual life. This would suggest in itself that some change in the endocrine system was instrumental in its causation.

Very possibly we must change our ideas of chlorosis as a definite disease, and think of it rather as a clinical entity not always due to the same etiological agent. Fifteen years ago all cases with a certain blood picture were diagnosed, pernicious anaemia, today we recognize that there are a number of abnormal conditions which can give the blood picture and clinical findings associated with Addisonian anaemia, and in those cases in which we do not discover the etiological agent we often feel that we have overlooked a diagnostic point which would have given us a clue to some hidden infection.

If we assume that the blood picture which we call chlorosis has as an underlying factor some endocrine disturbance, it does not necessarily follow that the gland, or glands, at fault are always the same. It is our opinion that in many cases the gland primarily at fault is the thyroid. This would be particularly true in districts in which there is an iodine deficiency. An association between thyroid disease and chlorosis has often been noted. Bigelow[7] in 1859 mentions the frequent association of enlargement of the thyroid and chlorosis, and Chvostek[8] in 1893 made a similar observation. Marine and Lenhart[9] in 1911 mention that thyroid hyperplasia and chlorosis are often associated, but did not feel that the exophthalmic state had any especial relationship to chlorosis. These observations were of course all made before calorimetry was available in the study of patients and naturally hyperthyroidism, rather than hypothyroidism, was assumed to be at fault. In some instances other endocrine factors than the thyroid undoubtedly play a greater or lesser part. In case two, for instance, we can assume that the lack of ovarian secretion following oophorectomy was an important factor. Endocrinology is yet in its infancy and in spite of the vast amount of recent literature on the subject there is a feeling among most medical men that we yet have much to learn concerning the real part that each gland plays in the body metabolism, and even less knowledge of the inter-relationship of the ductless glands. The vast amount of work necessary in the standardization of Insulin gives us some inkling of the advances we must make before endocrine gland therapy is reliable or satisfactory. This, we feel, explains to some extent the fact that we got widely varying results from the thyroid extract medications.

It has long been an accepted fact that iron is of great value in the treatment of chlorosis and we would not feel that its use should be discontinued, but that it should be supplemented by thyroid extract, perhaps in connection with other glandular products when metabolic studies show a lowered rate. Such treatment may be of particular value in avoiding relapses and in securing a better condition of general health.

SUMMARY

We have in this small series three cases which would, by all the usual criteria, be diagnosed chlorosis; of these three, two show quite definitely an association with hypothyroidism, in one the association is quite questionable.

We have four cases of milder degrees of chlorotic anaemia which show varying degrees of hyprothyroidism. We have a rather definite chlorotic type of anaemia in a man with a lowered metabolic rate.

Several cases show rather definite improvement under thyroid therapy, two cases relapsed when thyroid extract was discontinued, and again showed improvement when it was resumed.

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DIGITALIS: IT'S USES AND ABUSES*

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In dealing with diseases of the heart, at least two potent and helpful assistants can be summoned: absolute rest, and the drug digitalis. The merits of the first as an unfailing aid in all forms of cardiac trouble, are too well known to incite any explanation or discussion. The remedial powers of the latter are by no means so all-embracing, but digitalis has a distinct and specific mission in the heart field, and the type of case in which it may be used and the results it may be expected to give, have now been clearly outlined and defined.

*Read before Section on Medicine, M. S. M. S., September, 1924.

The pharmacopeia has no member more fascinating or deserving of intense study; none concerning which there are more misunderstandings or fallacies as to the scope of its administration; and conversely, none which requires to be so thoroughly understood by the prescribing physician. It's very history is almost an epic.

Other heart tonics there are, and many of them, as: strophanthus, strychnin, morphin, the cinchona derivatives—potent drugs, all, though some of them have not yet emerged from the experimental stage, and as in the case of digitalis, somewhat circumscribed in their several spheres of application. Their real merits can only be ascertained by experience in dealing with many and different classes of cases, and this is unqualifiedly true of all heart tonics.

Our consideration is with digitalis alone and its field of operations; as an aid in the successful treatment of heart disease.

As far back as the sixteenth century digitalis has been known, but then only as a botanical entity. It's virtue as a medicine is comparatively recent knowledge, while its pharmacology and use in general can truly be said to be modern.

William Withering of Birmingham, England, first experimented with the drug in 1775. It was brought to his attention when he investigated some old family recipe for the cure of dropsy. This remedy was compounded of several different herbs, the most active of which was found to be the foxglove.

Withering first experimented with digitalis as a diuretic and used the root of the plant, though afterwards he confined himself solely to the leaf. Careful perusal of his records will show that although he used the drug as a diuretic, he noted its good effects in certain heart cases.

From his day until the late eighties little was added to medical knowledge concerning this product of the foxglove. About this time Schmiedberg produced the active principles, and thus to German sources is the modern pharmacology of digitalis due.

Digitalis is essentially a narcotic, a cardiant, a diuretic and a stimulant. It elevates the blood pressure, increases the systole, lengthens the diastole and contracts the arterioles. It's most widely used active principles are: Digitoxin (the most poisonous), and digitalin, both glucoside by nature, but neither represents thoroughly the action of the drug. Strophanthus, convallaria, squills and cuabain, can be classed as allies of and belonging to the same family, and are more or less capable of producing similar action, the only difference being that the action of digitalis is more prolonged, while that of strophanthus is more rapid and intense. These differences are due to the mode of administration, (orally in the case of the former, and intravenously as to the latter), and also on account of the physical properties of the various drugs. The myocardium absorbs strophanthus much more easily, but also gets rid of it much more rapidly.

It is true that this drug, digitalis, was ignored, or at least, neglected for a long period, when it could have readily been an important factor in the medical armamentarium, but amends have been so made that an increasingly dangerous situation now presents itself. It is being put to every conceivable use, and therapy has wandered far from the direction in which digitalis is really the sovereign remedy.

A definite knowledge of the use and abuse of this important drug is a paramount necessity. The commercial world has even fastened on it and made it the subject of advertising campaigns whereby its indiscriminate use is advocated by manufacturers and others of empirical medical knowledge. Truly a prostitution of the "Queen of the Pharmacopeia," as digitalis has so rightly been called.

I cannot over-emphasize the fact that digitalis is not a cure-all. It is only helpful in certain specific heart conditions.

The various forms in which digitalis may be given all have their adherents and advocates, and much has been written in justification, with but little result. The tincture, the infusion, and the powder, as well as the active principles, all have their admirers. This much may be said, that all the galenical preparations produce practically the same action when these preparations are physiologically standardized so that the dosage can be accurately regulated.

Withering, than whom probably no one yet speaks with more authority, voices from his eighteenth century this specific objurgation:

"The ingenuity of man has ever been fond of exerting itself to vary the forms and combinations of medicine. Hence, we have spiritous, vinous, and acetous tinctures, extracts hard and soft, syrups with sugar or honey, etc., but the more we multiply the forms of any medicine, the longer we shall be in ascertaining its real dose."

The tincture is perhaps the best preparation of all. It, of course, does not represent the entire drug, but it retains its strength much longer than the infusion. To the fluid extract, a concentrated preparation, there are many objections, chief of which are that evaporation materially changes its strength, and on account of the smallness of the dose, it is difficult to grade the dosage. The infusion loses its strength very rapidly, and is very nauseating, much more so than the other preparations. In case of administration the powdered leaves surpass the others when taken orally.

The official preparations are, the fluid extract, the infusion, and the tincture.

It is indeed hard to say what preparation should be selected to obtain the most satisfac-

tory results. Probably it makes little difference so long as the physician uses a preparation which is active and with which he is familiar. I prefer a tincture in ounce bottles. I have found it potent and altogether reliable.

Where massive doses are immediately necessary, the only satisfactory way is to administer them intravenously.

Digitalis may be given in a single massive dose, in a modified massive dose, or in regularly repeated small doses. The difference lies in the length of time needed to produce results. As a matter of fact, I am firmly of the belief that in the majority of failures to obtain satisfactory digitalis action in properly digitalis cases, the reason for such failure lies, not in the drug itself, nor in erroneous dosage. The dangers in toxic effects from digitalization are more fancied than real; in fact, a certain toxic effect should be sought rather than avoided. To obtain full therapeutic effect it should be pushed until it acts on the stomach, bowels and pulse, and then discontinued for a period. This was Withering's method and it holds good today.

The heart must be brought under the effect of digitalis and kept digitalized, the best results being obtained when the heart rate is kept between 60 and 70 with no deficit.

The proper dose in different conditions opens a fertile field for discussion. Some physicians give small doses frequently repeated, others give large doses computed according to the body weight of the patient, while the small dose not frequently given, is held to by still another set. All, however, seem to agree that the large dose should no longer be given when the effect of the drug is clearly evident on the heart and circulation.

This very important factor should be kept in mind, no matter what size of dosage is preferred, that there is a decided difference in patients as to their tolerance of large doses, and this depends very frequently on the individual rate of excretion.

The dose of the fluid extract is 1 minim, the infusion 4 mils (1 fluid drachm), and of the tincture which represents 10 per cent of the drug 7½ minims. In massive dosage the "Eggleston" method of administration is followed and is designed especially for rapid digitalization by oral admission. It depends on the establishment of an average total amount of the drug which is required to produce full digitalization or the minor toxic action. This total amount is expressed in terms of the activity of the drug and the patient's body weight in pounds. The activity of the drug is determined by the "cat method" of Hatcher, the unit being the weight of dry drug in milligrams which is required to kill one kg. of cat, when a solution is injected slowly and continuously, intravenously. This amount is called a cat unit. High grade specimens of digitalis average 100 mg. to the cat unit.

The average total of dose of 2 minims of the tincture to each pound of body weight administered orally to man, will produce early toxic signs, this representing 0.1 of one cat unit. The appearance of one or more of the following symptoms of adequate digitalization, or of minor digitalis intoxication, indicates the cessation of further administration, either permanently or temporarily:

Nausea or vomiting (except when due to planchnic congestion and present before treatment.)

Fall of heart rate (not pulse rate) to or below 60 a minute.

Appearance of frequent premature contractions, of definite heart block, of marked phasic arrhythmia, or of coupled rhythm.

Dosage should not be routine, but should be adapted to the nature of the disease and to toleration. In short, administration should be strictly individualized. The drug is essentially a muscle trainer and the heart should be coaxed gradually to greater activity rather than to start with excessive stimulation. In most cases where its aid is required a few hours more or less of rapid heart action is not necessarily fatal, and results can with complete safety be waited for. Therefore, massive doses are not needed, and with the possible exception of auricular fibrillation and really dangerous or moribund conditions, should not be given.

A most important phase of digitalis therapy is its physiologic and toxic effects. When it is given in sufficient amount, a therapeutic effect can be observed in from 2 to 6 hours, and the maximum of action attained in from 12 to 18 hours. In complete digitalization partial or complete auriculo-ventricular heart-block is frequently caused and associated with this one usually finds nausea, vomiting and headache, which, with the heart-block, disappears in from 12 to 14 hours after the discontinuance of the drug.

If it is not stopped when these symptoms appear, a slowing, or perhaps almost a suppression of the urine will result, combined with an increase in the severity of the before mentioned symptoms—the so-called cumulative effect. It will rarely occur, however, with ordinary small dosage, even when the drug is given daily for a long period.

Digitalis vomiting is common, some patients being susceptible to emesis even immediately after small doses, while again others are only affected by large doses. A very efficacious combination of digitalis and atropine sulphate can be administered in small initial doses in intolerant cases, gradually increasing the digitalis dosage to the usual maximum, without inducing vomiting, and with excellent clinical results.

In digitalis poisoning, which is of rare occurrence, an emetic should be given, also tannic acid solutions, and later a quick acting cathartic. Dry heat should be applied to the body and hot fomentations to the kidney area. Nitroglycerin is of some value, but there is no physiologic antidote.

There is no external action—on mucous membranes it is slightly irritant in strong preparations, and tends to cause nausea and vomiting on an empty stomach. Large doses may incite diarrhoea. It is absorbed from the stomach and intestines.

At this point I must pause, for the question already suggests itself: What is digitalis good for, and what are the indications for its use?

In reality, and as a general statement, I should say that digitalis therapy is simple. It is the remedy for cardiac insufficiency, and this holds true, irrespective of the cause of the insufficiency. Herman Sahli of Switzerland, has very clearly expressed the indications of the heart's inability to perform its functions properly, and separates them into five varieties of stasis: Cardiac, respiratory, high pressure stasis, vasomotor stasis, and splanchnic stasis. In each and every one of these varieties of stasis the use of digitalis is indicated. The signs and symptoms which are the result of cardiac insufficiency are usually breathlessness, cough, cyanosis, edema, pain, weakness, nausea, vomiting, enlargement of the liver, decreased urine output, and rapid pulse.

Digitalis is unequalled in the treatment of dilatation of the heart, and of broken compensation in valvular troubles. It eases heart strain caused by over-exertion, and benefits a heart weakened by tobacco. It is beneficial in edema or exudates in any part of the body where there is poor circulation and no serious kidney lesion. All dropsical conditions due to weakening of the circulation are benefited by it, provided there is no kidney trouble or nephritis. The drug is a muscle trainer, the strengthening of the heart action being the patent effect of its administration. There is a systolic influencing as well as a diastolic effect—a better emptying of the ventricle and a lengthening of the diastole, which naturally results in a slowing of the heart rate. This pertinent fact must, however, be kept in mind, that the absolute strength of the heart muscle remains unchanged, the primal effect of the administration of digitalis being to enable it to use to better advantage the power which it has left. The slowing of the heart rate is not entirely the result of strengthening of the heart muscle, but is also a result of the action on the vagus.

In mitral stenosis, where the auricle and ventricle are beating in normal rhythm and the heart doing its work, digitalis is not the remedy, for the systematic circulation would get but little help. Furthermore, it would not remove the stenosis. But where there is mitral stenosis, combined with auricular fibrillation—and auricular fibrillation is more common with mitral stenosis than with any other lesion of the heart—the beneficial effects of digitalis would outweigh any possible disadvantages.

In mitral insufficiency it is also indicated, tending as it does to better co-apt the leaking cusps, and by strengthening the systole to fill the aorta and pulmonary arteries.

The narrowing of the orifice in aortic stenosis is helped by digitalis, so that an increased power in the systole forces more blood through the orifice and dilates and hypertrophies the left ventricle. Aortic regurgitation, combined with a failing heart, is a clear indication for the use of the drug.

In auricular fibrillation this drug is without question the one sure remedy, and here more so than in any other condition, the massive dose may be rightly prescribed, acting as it does to practically intoxicate the heart and restrain the conductivity of the auriculo-ventricular bundle. A distinction must be made between this condition and the rapid heart action in advanced myocarditis, in which latter case digitalis should be given sparingly.

All therapies have their cruces. So is it with digitalis. When to use or not to use; that is the predominating question. I have already indicated what this important drug is good for, and will now try to outline some of the contra-indications.

Heart disease *per se* is not an indication, nor must the aid of digitalis be called for in all cases of weak and rapid cardiac action. The simple presence of a heart murmur or a perfectly compensated valve lesion do not of themselves indicate its use, while a normal heart is hardly affected by a non-toxic dose.

Generally speaking, if the nature of the lesion producing cardiac insufficiency is such as to produce certain dangers which might be exaggerated by increased effort on the part of the heart, its use should be denied. In cases of high pressure stasis with cardiac insufficiency and cerebral hemorrhages, the latter being the predominating condition, it should not be given. Thoracic aneurysm, associated with cardiac insufficiency, negatives its use, there being a danger of rupturing the aneurysm. Where a myocardium is so degenerated that there is not a sufficient number of normal fibers left to carry on circulation, digitalis would have little effect, for a heart in this condition would certainly not be increased in power, and digitalis or any other drug would fall far short of aiding it to use to better advantage the little power which it has left.

Arrhythmia, palpitation, slight anginoid attacks of neurotic origin, and the various forms of tachycardia, are contra-indications, as is the

effort syndrome. Hyperthyroidism is considered a contra-indication by many authorities, but Dr. Crile is responsible for the statement that a patient with a toxic goitre stands a thyroidectomy much better if given digitalis a week or ten days before operation.

Diphtheria is another contra-indication, because of the similarity of effects of digitalis and diphtheria toxin upon heart structure, resulting in an accumulation of similar effects of stimuli in the same heart. A like situation would, under certain circumstances observe in influenza and flu-pneumonia.

Its use is further to be denied in fatty degeneration of the heart, in vascular contration, in irregularity of the heart, and in extra systole. It should not be used in acute endocarditis, except where there is an irregularity of the pulse, or in pericarditis unless in the latter condition the heart is laboring. Digitalis is also inadvisable in acute fever processes.

A powerful drug is this product of the foxglove, but at the same time it is a double edged weapon. It is capable of getting the maximum of desired results when it is indicated and skillfully used; it has possibilities for utmost harm where it is not the remedy. In my opinion inadequate doses are too common in modern practice. A majority of the text-books and even the pharmacologists play for safety in advocating small doses and fail to indicate the drug's full efficiency. The empiricists, of course, naturally follow along the lines of least resistance with their denatured courses of treatment.

Large doses ought not to be feared or avoided, the whole aim and object of the drug's exposition should be to produce the maximum therapeutic result with the minimum toxic effect. The "safety" school are apt to miss the former in trying to evade the latter. Heroic doses, while infrequently indicated, can with proper precautions be given with complete safety.

The medical profession owes much to the obscure English housewife of a bygone day, whose crude experimentation in rudimentary medical treatment was the means of uncovering the possibilities of the foxglove. It owes more to that sterling old English physician, William Withering, whose knowledge of the virtues and uses of digitalis, acquired by long and painstaking labors, is only equalled by the scholarly language in which he has handed down to us the entire benefits of that knowledge.

From such a mentor and from the written master-pieces of modern students of cardiology the general practitioner can take inspiration in his study of digitalis. He who would study it, its actions and effects, leavened by personal experience and observation in diverse classes of cases ,who uses it with confidence and in knowledge, will find it a willing servant and a sovereign remedy indeed.

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BISMUTH SALICYLATE AS AN ANTI-SPYHILITIC AGENT

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In March, 1924, I presented to the members of the staff of the Grace Hospital, a paper embodying a brief review of the literature, and a preliminary report of my experience in the use of bismuth in the treatment of syphilis, quoting results in some 29 cases. Since that time we have had under treatment 25 additional cases, all of whom have received treatment with bismuth salicylate. Hereby appended are the detailed case reports of these patients selected for treatment from the syphilis clinic of the Grace Hospital.

The type of bismuth used in all of these cases was bismuth salicylate. This was given in two grain doses, injected intramuscularly. We found this product to be practically painless and in no case was treatment refused and in only one case was treatment discontinued temporarily for stomatitis. We have seen no untoward effects, although we have given as many as forty-eight injections to an individual. We have found no Herxheimer reactions. In a number of cases bismuth was given where it was impossible to give salvarsan, owing to the untoward reactions. Most of the cases refused to continue mercury treatment on account of pain, but did not refuse the bismuth.

CASE HISTORIES

CONGENITAL

Case No. 1. Doris F., an 11-year-old colored girl, complained of poor vision and headaches. The Wasserman on examination June 7th, 1923, was ++++. The treatment previous to bismuth administration was 0.6 gm. neosalvarsan intravenously at weekly intervals and bi-weekly injections of Hg. salicylate, she having a total of 5.4 gm. of Neosalvarsan to December 21, 1923. Wasserman at beginning of treatment with bismuth salicylate, ++++. Eye condition unchanged.

February 25, 1924, bismuth salicylate gr. 2, intramuscularly was started. The total number of injections given was sixteen.

The Wasserman reaction July 20, 1924, was negative.

This patient was almost blind in the right eye, but at the present time she sees fairly well.

Case No. 2. L. H., a colored boy 10 years old came to the clinic in 1921 with a tumor of the clavicle. The X-rays showed evidence of syphilis. From 1921 to 1924 he received spasmodic treatment with neosalvarsan, mercury and silver arsphenamine. The condition improved somewhat, but the Wasserman remained positive. On January 21, 1924, he received the last injection of neosalvarsan. On February 11, 1924, bismuth salicylate gr. 2 intramuscularly was started. Up to May 25 he received 12 injections of bismuth salycylate. The blood Wassermans were continuously positive to May 24th, when the Wasserman was returned negative. Two Wassermans since this time have been returned negative

Case No. 3. D. P., a colored girl 13 years old, appeared at the clinic with what was clinically a tertiary syphilide on the leg. The Wasserman was negative. On June 9th she received an injection of bismuth salicylate, intramuscularly and a similar dose on the 13th.

Up to July 28th, 1924, she had received 12 injections of bismuth salicylate. The Wasserman was negative on August 24, 1924, but there had been a breaking down of the ulcer in various areas.

SECONDARY

Case No. 4. J. E., a white male 28 years old, complained of headaches and pain under the jaw. A primary sore was present upon the upper lip. There was generalized adenopathy, papular syphilide of the face and a macular syphilide was present on the body.

Wasserman on admission, August 11, 1923, ++++.

Treatment previous to bismuth, nine weekly injections of .9 gm. neosalvarsan. Bismuth treatment was started January 7th, 1924. At this time the Wassermann was ++++. The lesions had all disappeared and the patient was on a rest period from December 10th to January 11th. Bismuth salicylate, gr. 2 was given intramuscularly every second day to February 28th, a total of twenty injections being given. The Wasserman March 4th, 1924 was negative.

Case No. 5. T. R., a white male, 27 years old, had a primary sore on the penis and a macular eruption on the body.

The Wasserman at beginning of treatment was ++++. The treatment started Jan. 4, 1924 with bi-weekly injections of bismuth salicylate, gr. 2, intramuscularly. The chancre disappeared within two weeks; the secondary lesions in 5 weeks. Wasserman August 8, 1924, negative; September 8, 1924, ++. Patient feels well and has gained six pounds in weight.

Case No. 6. M. P., a white male, 21 years old. Secondary lesions on body.

The Wasserman Nov. 17. 1923, ++++. Total treatment to time of bismuth injections as follows: 10 injections of 0.9 gr. neosalvarsan. Mercury injections intramuscularly, which were discontinued because of pain and mercury rubs substituted.

In March, 1924, the following treatment was started: Weekly injections of 0.9 gm. neosalvarsan and bi-weekly injections of bismuth salicylate gr. 2.

The Wasserman at the end of the rest period was negative.

The Wasserman September 16, 1924, ++++.

LATENT

Case No. 7. E. H., a colored man, 31 years old, was referred from the gastro-intesinal department as a latent syphilitic. He complained of abdominal pains. He had a chancre 18 years ago..

We considered this a case of visceral syphilis.

Wasserman taken January 19, 1924, ++++.

This patient was given bismuth salicylate gr. 2, intramuscularly, receiving 27 injections of bismuth from January 31, 1924, to February 18, 1924. The symptoms disappeared rapidly, but up to the present time the Wasserman is still ++++.

Patient has gained 7 pounds during the course of treatment.

Case No. 8. M. C., a white female, 21 years old, complained of pelvic pain. A routine Wasserman was done, which was ++++. This was a pre-operative case. On April 14th she was given bismuth salicylate gr. 2 intramuscularly and received 18 injections up to July 15th.

The Wasserman report May 22 was ++++; June 30th, negative; August 14th, negative; September 7th, negative.

This case was interesting in that it showed how rapidly certain types of cases cleared with Bismuth treatment.

Case No. 9. M. C., a white female 37 years old, applied for hospital position. A routine Wasserman showed ++++ on Jan. 26th. Thirty-two injections of bismuth salicylate were given at suitable intervals up to July 28th.

On July 31st the Wasserman was negative; on August 4th, Wasserman ++; August 28th, Wasserman ++++.

Case No. 10. F. C., a white female, 36 years old, was referred from the gynecological department as a latent syphilitic on February 28, 1924, when she had a ++++ positive Wasserman. This was a pre-operative case. The patient received on March 6th, 10th, 13th, 18th, 24th and 30th, 0.9 gm. neosalvarsan; on March 31st, April 3, 14, 17 and 21, bismuth salicylate gr. 2 intramuscularly. From May 26th to June 12th she had 6 injections of bismuth salicylate. At this time the Wasserman was plus minus.

Patient disappeared from observation following operation.

Case No. 11. T. W., a white female, 35 years old. A routine Wasserman in the course of a physical examination showed ++++. There was no clinical history of lues.

From January 14th, 1924 to June 6th, 1924, she received 10 injections of 0.9 gm. neosalvarsan. At the end of this time the Wasserman was still positive.

From June 10th to July 21st she received 10 injections of bismuth salicylate gr. 2 intramuscularly.

August 4th Wasserman was negative; September 7th, Wasserman negative.

Case No. 12. A. K., a white female. 49 years old, complained of abdominal pains. Wasserman taken June 5th, 1924, ++++.

From June 5th to August 12th she received 12 doses of bismuth salicylate gr. 2, intramuscularly. On August 24th the Wasserman was negative.

This patient was relieved of the abdominal pain within two weeks, and has gained 6 pounds in weight.

Case No. 13. V. A., a white female, 35 years old. A routine examination for a hospital position revealed a ++++ Wasserman. This was in January, 1923. Patient was put on treatment, receiving

weekly injections of 0.9 gm. neosalvarsan and mercury inunctions.

During 1923 she had three courses of 7 injections each of neosalvarsan. January 1st, 1924, Wasserman returned ++++. Jan. 10, 1924, she was put on injections of bismuth salicylate gr. 2, intramuscularly, bi-weekly. She has received three courses of 16 injection seach, with a month's rest period between each. Wasserman September 5th was returned ++++. This patient has shown a decided improvement in physical condition, but we must consider this a Wasserman-fast case that is affected neither by salvarsan, nor by bismuth salicylate.

Case No. 14. I. N., a white female, 43 years old, was referred to me for bismuth treatment when a prolonged course of neosalvarsan and mercury failed to change a ++++ Wasserman.

Treatment began April 4th, 1924, and consisted of bismuth salicylate intramuscularly gr. 2, three times a week, with a rest period of two weeks after 12 injections had been given. Wasserman taken during rest periods was returned ++++. On July 2 she was put on a treatment of .6 gm. neosalvarsan in weekly injections and bismuth salicylate gr. 2 intramuscularly twice weekly. This she received for 9 weeks.

At the end of this time the Wasserman was ++. This patient is still under treatment.

Case No. 15. Mrs. E. P., a white female, 17 years old.

Owing to the presence of syphilis in her husband, a Wasserman was taken on November 19, 1923, which was ++++. She was 5 months' pregnant at this time. She received neosalvarsan in weekly doses of 0.9 gm. Nevertheless she miscarried January 1, 1924.

On March 18, 1924 the Wasserman was still ++++. Treatment was resumed March 20th, patient receiving 0.9 gms. neosalvarsan and two injections of bismuth salicylate gr. 2, intramuscularly. She received a total of twelve ampoules of Bismuth. Wasserman taken April 26th, 1924, negative. Wasserman taken September 16, 1924, negative.

Case No. 16 B. D., a white male, 33 years old, had a routine Wasserman, which was returned ++++. He claims never to have had any knowledge of an infection. His treatment began Oct. 11, 1923, and lasted until January 30, 1924. During this period he had 12 injections of 0.9 gm. neosalvarsan and mercury inunctions. Wasserman at the end of this period was +++.

February 3 the combined treatment of neosalvarsan and bismuth salicylate was started, he receiving 6 weekly injections of neosalvarsan, with bismuth at three-day intervals.

Wasserman taken in March showed a negative reaction.

Case No. 17. Mrs. E. S., white female, 33 years old, was referred with a history of lues. The Wasserman gave a ++++ reaction. She had been treated at intervals for two years with neosalvarsan intramuscularly and mercury intramuscularly. She was placed on injections of bismuth salicylate from February 18, 1924 to July 20, 1924, she receiving 36 injections of bismuth salicylate gr. 2 intramuscularly, with appropriate rest periods.

At the end of this time the Wasserman was negative.

September 14, 1924 the Wasserman was still negative.

I consider this a good example of a Wasserman-fast case, which was reversed by bismuth treatment.

TERTIARY

Case No. 18. E. P., a white female, 37 years old, appeared on the 21st of November, 1923, with a palmar syphilide. Wasserman taken at this time was ++++. This patient was immediately put on injections of bismuth salicylate gr. 2 intramuscularly, receiving bi-weekly injections, with rest periods during January and April. The lesions cleared up within a few days after the third injection. Treatment was discontinued May 12, 1924. On August 4, 1924, the Wasserman was +, September 7, 1924, the Wasserman was negative.

This case is interesting in that it demonstrated a case that had had no previous treatment and the action of bismuth salicylate upon tertiary lesions.

Case No. 19. E. T., a colored female, 29 years old, who reported at the clinic on March 11, 1924, with a typical rupial syphilide on the shoulders, face and body. The Wasserman taken at this time was ++++. The patient was put on intramuscular injections of bismuth salicylate gr. 2, bi-weekly and from March 20th to July 16th she had 10 injections. The lesions cleared rapidly.

The control Wassermans were all ++++.

During the month of August she had 8 injections of bismuth and August 28th her Wasserman was still ++++.

NEURO-SYPHILIS

Case No. 20. L. P., a colored woman, 30 years old, appeared March 26, 1924, complaining of headaches and back pain. The Wasserman was ++++.

Spinal puncture was not done. Bismuth salicylate gr. 2, intramuscularly was given. This patient was not very regular and received 7 injections between April 10th and June 5th.

The headaches completely disappeared, but up to August 8, 1924, the Wasserman was still positive.

Case No. 21. G. A., a white male, 34 years old, appeared, complaining of defective vision. An examination revealed optic atrophy and endocarditis. He had a chancre 15 years previously. The blood Wasserman was ++++; spinal Wasserman ++++.

From June 14, 1923 to Jan. 7, 1924, he received 15 injections of 0.9 gm. neosalvarsan and 18 injections of mercury salicylate, intramuscularly. On Jan. 27, 1924 the Wasserman was still ++++ and the eye condition had not improved.

From January 21st to July 28th he received 27 injections of bismuth salicylate, gr. 2, intramusculary. He gained in weight and stated that he felt much better. The eye condition had not improved.

Wasserman report since May 12th +.

Case No. 22. J. G., white male, 40 years old, complained of facial paralysis and a left hemiplegia.

This is a case of neuro-syphilis which showed an intolerance for salvarsan.

Patient was put on bismuth salicylate gr. 2, intramuscularly and received 28 injections between the 18th of February and the 15th of July.

The Wasserman report up to August 9, 1924, was ++++.

Patient improved physically, but there seemed to be no effect on the paralysis.

Case No. 23. P. S., a white male, 35 years old, with a history of a chancre 18 years previously, complained of headaches. Spinal fluid Wasserman was not taken.

The blood Wasserman May 22, 1924, was ++++.

Patient was put under treatment, receiving bismuth salicylate gr. 2, intramuscularly every second day, with appropriate rest periods. A total of 20 injections were given.

July 17, Wasserman negative. August 17, Wasserman negative.

Case No. 24. M. J., a white female, 25 years old. History of prolonged sore throat four years previous. Blood Wasserman ++++; spinal Wasserman ++++.

This patient was put on injections of bismuth salicylate gr. 2, intramuscularly and from January 8, 1924 to September 4, 1924, she received 36 injections of bismuth.

The headaches have completely disappeared and patient has gained twelve pounds in weight.

Blood Wasserman September 20, 1924, xx.

Case No. 25. M. H., a white male 36 years old, complained of sharp abdominal pains, cramps in the legs and loss of memory.

Blood Wasserman taken April 15, 1923, negative; spinal fluid Wasserman ++++. This patient received 5 injections of salvanized serum at intervals of two weeks.

Following this treatment he developed an acute mental deterioration and was placed in a sanitarium, where he received 10 injections of neosalvarsan, intramuscularly and mercury rubs.

He was released from the sanitarium February, 1924.

In May of the same year he complained of headaches and "peculiar feelings" in his body.

May 14, 1924, he was put on bismuth salicylate gr. 2, intramuscularly, receiving 30 injections of bismuth from May 14th to August 12th. At the end of this time he was again working as a salesman and had complete relief from the "queer feelings" and headaches. Spinal Wasserman still ++++.

An analysis of these 25 cases shows the following:

Total treated, three congenital, in which the Wasserman was negativated in all.

Three secondaries, in which the Wasserman was negativated in two cases.

Two teritary, in which the Wasserman was negativated in one case.

Six neuro-syphilis, in which the Wasserman was negativated in one case.

Eleven latent, in which the Wasserman was negativated in seven cases.

In every case there was symptomatic improvement, the type showing the least improvement being the later neuro-syphilitic.

ANALYSIS OF DISAPPEARANCE OF LESIONS

Primary lesions disappeared in one or two weeks. Glandular infiltrations disappeared in six to 10 days.

Secondary lesions began to disappear inside of two days, although in some instances they took a much longer period.

In the congenital there was an amelioration of the symptoms within a week.

The tertiary lesions showed disappearance of the lesions within ten days to two weeks.

The neuro-syphilitic are the most indefinite, but there was a disappearance of headaches and muscle pains following the second to third injection of Bismuth.

SUMMARY

(1) In our work with bismuth we have treated and followed through a total of 54 cases.

(2) We can definitely reiterate the statement made in our preliminary report that Bismuth is a valuable agent in the treatment of syphilis.

(3) We believe that it stands above mercury, but below salvarsan in efficiency, inasmuch as it is slower than salvarsan in its action.

(4) We believe that the persistent use of bismuth alone over a prolonged period of time will aid in the cure of syphilis, but we think that the combination of salvarsan and bismuth will give quicker and better results.

(5) The slower and prolonged action of bismuth helps protect the patient against the early development of neuro-syphilis.

(6) That in latent cases and early neuro-syphilis it will act better than salvarsan to check the spread of the ravages of the disease.

CHART OF CASES

	Type	Previous tr.	Wass. at beginning of Bismuth	Wass. at end of tr.	Amt. of Bismuth tr.	Results
1.	Congenital	5.4 gm. Neosal. Mercury	++++	Negative	16 inj.	Good
2.	Congenital	14.4 gm. Neosal. Mercury	++++	Negative	12	Good
3.	Congenital	None	Negative	Negative	12	None
4.	Secondary	8.1 gm. Neosal.	++++	Negative	20	Good
5.	Secondary	None	++++	Negative	36	Good
6.	Secondary	9.0 gm. Neosal. Mercury	++++	++++	24	None
7.	Latent	Mercury & K. I.	++++	++++	27	Fair
8.	Latent	None	++++	Negative	18	Good
9.	Latent	None	++++	++++	32	None
10.	Latent	5.4 gm. Neo.	++++	plus-minus	11	Good (mixed)
11.	Latent	9.0 Neosal.	++++	Negative	10	Good (mixed)
12.	Latent	None	++++	Negative	12	Good
13.	Latent	20.0 gm. Neosal. Mercury	++++	++++	48	None (Wass.-fast to Neo&bis.)
14.	Latent (Wass-fast)	Neosal.& Hg. Amt. unknown	++++	++	18	None (mixed)
15.	Latent	9.0 gm. Neosal. Mercury	++++	Negative	12	Good (mixed)
16.	Latent	10.8 gm. Neosal. Mercury	++++	Negative	18	Good (mixed)
17.	Latent	2 yrs. of Neosal. & Mercury	++++	Negative	36	Good (removal of Wass,-fast)
18.	Tertiary	None	++++	Negative	40	Good
19.	Tertiary	None	++++	++++	30	Fair
20.	Neuro	Tr. off and on	++++	++++	27	None (good physical)
21.	Neuro	13.0 gm. Neosal.	++++	++++	27	None (good physical)
22.	Neuro	Off and on	++++	++++	28	None
23.	Neuro	None	++++	Negative	20	Good
24.	Neuro	None	++++	++	36	Fair
25.	Neuro	10.0 gm. Neosal.	++++	++++	30	Fair (good phyy.)

REPORT OF AN EUROPEAN CLINICAL TOUR

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The purpose of the tour which was taken by a small group of American Surgeons during the summer of 1922, was to provide an opportunity for seeing at work, representative surgeons of famous clinics of Great Britain and Europe. Since the itinerary was prearranged, it was presumed, as actually happened, that operative clinics would represent subjects which had most interested these gentlemen and for which they had won renown. Expression of appreciation is due Dr. Franklin Martin for many letters and advisory assistance in arrangements for our director, Dr. Jas. L. Smith. Nine countries were visited.

I cannot omit recognition of the reception and cordiality accorded our modest group. The clinical programs, almost invariably fascinating, and the carefully planned demonstrations afforded so inestimable profit that detailing should be done instead of brief description with much omission in this resume' of a three months' tour.

The opportunity was afforded for comparison of procedures of several men, famous for their accomplishments in particular subjects of surgery.

At the outset, we met with a disappointment. A storm at sea so belated our arrival, that it deprived us of a three-day clinic, provided by the distinguished Orthopedist of Liverpool, Sir Robert Jones, whose wireless communications were the most we were privileged to receive from him. The Edinburgh dates of our schedule required us to proceed thence, where Sir Harold Stiles arranged the programs.

Sir Harold Stiles is successor to Lord Lister. He was the first to use the paraffin method of fixation in the preparation of surgical specimens, the gum and sugar method having been in vogue previously. He said he obtained the idea from an assistant, who had returned from Naples, where he had studied embryology. His sharp dissection with a scalpel is most impressive. He has a trick of winding long catgut for tying caught vessels, around his left ring finger. We did not see a needle holder used in his clinic. (One rarely sees this instrument in Great Britain, as a Peasley needle is commonly used for wound closure.) He said he fears catgut and uses no chromic, which seems to be another characteristic of Great Britain. The catgut used is iodized. Skin was usually approximated with metal clips.

To maintain continuity of assistants in the Edinburgh Clinic, there has been created a position known as clinical tutor. It is a permanent position, and this man is first assistant. The house surgeons serve for five months.

The interest of this great surgeon in the pathology of the breast and supernumary ribs was indicated by his discussion of these subjects. In dealing with breasts, malignant or probably malignant, he said he was always radical and preferred to err in that direction. He stated that he believed in narrow skin and wide fascia dissection. He made a point of always placing the wound anterior to the axilla. His dissection of the upper flap reaches to the opposite margin of the sternum and clavicle and of the lower to a point posterior to the anterior margin of the latissimus dorsi. The amputation of pectorals start with the insertion. All fascia, including that of the upper rectus, is removed. He emphatically stated he believed in the heredity of cancer and that malignant lesions were predisposed.

In his discussion of cervical ribs, he stated that 1 to 2 per cent of all individuals have this anomaly and that nerve pressure occurs in 5 to 10 per cent of the cases. Symptoms are observed in prefixed and postfixed cervical plexuses. A first rib may cause the same symptoms, with or without the presence of a cervical rib and may require removal as well. Embroyology explains these anomalies by the fact that the nerve development preceeds bone development and the plexus is sometimes found on unusual levels. In an illustrative case, incision was made along the anterior margin of the scalenus medius and a beautiful anatomical dissection made. The cause was shown to be a large, tough, fibrous band from the cervical rib. The band and rib were removed. The band was posterior to the 5th nerve root and caused enlargement of the nerve.

The point made in a gastroenterostomy for duodenal ulcer was the opening of the gastrocolic omentum and doing the anastamosis by bringing the stomach and jejunum through this opening. He offered that the advantage was greater ease of bringing the operative field onto the surface of the abdomen.

He also did a complete laryngectomy and glossectomy through a combination midline and transverse anterior neck incision for a carcinoma of base of tongue with erosion of epiglottis in a patient of 58 years.

Professor Meekin, in a demonstration of the duodenal tube, stated that he thinks he can demonstrate the type of bile and sometimes the site of the infection. The first flow of bile comes from the common duct, the second from the gall bladder and the third from the hepatic ducts. He uses magnesium sulphate solution to increase the bile secretion. He suggests this procedure for treatment in acute jaundice.

One of the most valuable and appreciated demonstrations of the tour was given by Mr.

David Greig of the Royal College Museum of Edinburgh. He has been a surgeon all his life with keen interest in specimens and is now retired from practice to be curator. The following remarkable and rare specimens were shown.

1. Bifid tongue, complete anterior, showing three sources of origin in embryological development.
2. Horns, sole of foot—mental defective. (Ichthyosis).
3. Asymmetry of head. (a) Pressure—obstetrical trauma. (b) Developmental.
4. Ateleosis.
5. Deformed pelvis—Congenital.
6. Tibia—Large bone cavity. This patient, a seaman, had a discharging sinus for years. He plugged it with wood, removed the cork and evacuated the pus as necessary.
7. Perforated skulls — Metastatic carcinomas from: (a) breast; (b) stomach; (c) frontal sinus erosions—epiblastic growths; (d) maxillary sinus—(no outgrowth of bone): 1. orbit; 2. illium.
8. Bilateral dislocation of hips—(skeleton) large outlet. 16 pregnancies—10 living.
9. Intracranial osteogenic overgrowths. (Frontal fossa is starting point. Suggested to occur in puerperium and when recumbent position is maintained a long time. 2 cases—78 years and 82 years.
10. Overgrowth of bone—inherited syphilis—2 cases.
11. Skull of deaf mute—No auditory meatus, (no auricle or eustachian tube.

For his easy, pleasing style, extraordinary power of description and ready command of language, I have long regarded Sir Berkley Monyhan as the greatest orator of the surgeons of our time, as well as one of the greatest of contributors to the literature of abdominal surgery. In his operating room, for the first time, I found new pleasure in observing and listening to the man at work. His movements are not fast, but purposeful, making progress of the operation continuous.

For gastric ulcer, he said he had come to routinely do a gastrectomy, which he does by an anterior gastro-jejunostomy, using a short loop of the jejunum. He stated that this gastrectomy for stomach ulcer is the most satisfactory of abdominal operations, and his mortality is 1.6 per cent. He uses linen without ulceration in his experience. The evolution of his experience in this disease, he said, was first, posterior gastro-jejunomtomy, after which vicious vomiting sometimes occurred. An experience with a jejunal growth developed the procedure of anterior lateral application of jejunum to the stomach end together with end of the duodenum to lateral jejunum below. Generally applied, this required too long an operation, hence the above described technique of applying a short loop of jejunum anteriorly to the cut end of the stomach has become the method of choice.

In the diagnosis of stomach ulcer, he said he depended upon the X-ray and not on the history. The "nitch" and the "notch" as he illustrated by lantern, are the determining signs. For a duodenal ulcer, he did a posterior gastro-jejunostomy, infolded the base of the ulcer, ligated a vessel leading towards the ulcer and sutured an adjacent piece of omentum over the repair. A bound down, buried appendix with glands suggested tuberculosis. His comment was that a detached piece of terminal appendix is not often mentioned, but is possible.

When Monyhan waited on account of the straining of the patient, he remarked, "Every pull gives a pain." "Never quarrel with a patient asleep or awake."

Some general remarks by Sir Berkley desevere relating. The infected appendix and lymphatics of the ileo-colic angle communicate to the lymphatics of the greater curvature of the stomach, producing what he has termed the "blushing pyloris," which is a lymphangitis or as he has called it, "the mimicry of a gastric ulcer."

In the discussion of infection of the gall bladder, he said cholecystectomy should always be done with one exception, which is in the case of the single cholesterin stone which is not accompanied with infection and may be definitely diagnosed by the radiating lines in the single shadow of the X-ray and by cholesterin estimation from the blood. Cholecystectomy should only be done in this instance. The infected gall bladder may arise through:

1. Lymphatics—Outer wall.
2. Blood—Submucosa.
3. Bile—Mucosa.

Because the gall bladder wall is without much muscle, infection is not expelled.

Deposit of fat, as is seen on the wall of an infected gall bladder, about the base of an ulcer or about an infected appendix, indicates attempted protection.

Monyhan called attention to the single stitch method for colotomy. He described a technic to provide for complete rest of the stomach. After a gastroenterostomy is done, the loop may have a lateral anastamosis. A tube may be passed through the wall of the proximal gut and on through the anastamosis, opening into the distal gut and feeding may be done through this tube so that all nourishment administered, passes directly into the jejunum. When the tube is removed, the track soon closes.

In Monyhan's clinic, we were provided with cap, mask, gown and leggins. The last are required as the result of an experiment. Bacillus prodigiosus was placed on the trouser legs of individuals, who walked around the operating room three times. The 25 or 30 agar plates placed about the room, all showed growths.

Nurses in the Leeds Infirmary receive a four years' training and for one more year, a degree of N. D. is given from the University. The latter provides special training for those nurses who hope to occupy executive position.

In the great medical center of London, we became indebted to more surgeons and institutions than the limitations of this brief report permit including. Sir John McAllister, president of the Royal College of Physicians, had so filled our program that we could not get around to all that had been arranged. St. Bartholomew's, Guy's and St. Thomas hospitals, all founded in the eleventh and twelfth centuries, are more interesting for their antiquity than could possibly be hoped for in present day accomplishments.

A great variety may be seen in London, even including methods and procedures, modern and ancient. We probably saw every kind of anaesthetic in use; every degree of dress for the surgeon from street clothes or rubber boots to the cap, gown and gloves; the exposed patient and patent heating devices during operation and we entered operating rooms with or without protection, which in one instance, was solely the wearing of galoshes.

One of the most interesting days of all was the one we spent in the Royal College of Surgeons Museum with the President, Sir Anthony Bowlby, the curator, Mr. Keith, other officers and gentlemen of the college as our hospitable hosts. The enormity of this museum cannot be comprehended without visiting it and then, I fear, inadequately. The original purpose of the museum was to represent interest in all life; it has been necessary to reduce interest to man only. It contains John Hunter's specimens and furniture. A few of the subjects which particularly attracted the writer's attention were:

1. Trephined Neolithic Skull.
2. Large series of gas pulmonary lesions.
3. Large series of war wounds of face.
4. Acromegaly complete.
5. Dwarfism complete.
6. Mummy 4000 B. C.
7. Overgrowths.
8. Atrophies.
9. Anomalies.
10. Periodic characteristics.
11. Hunter specimens.
12. Hunter furniture.

The Radium Institute of London appeared to be the center for the use of the therapeutic agent, radium. Many surgeons send patients to this institution when radiation is prescribed and many patients on their own account, apparently come there for advice and treatment. The director who gave us an afternoon, said that his belief in the use of radium was for inoperable conditions or for the supplement of surgery. He said that the policy of the institution was to refer all operable lesions to a surgeon and radiation might or might not follow according to the opinion of the surgeon.

Dr. Shoemaker, of the Hague, whose paper at the Philadelphia Congress in 1921 was a plea for non-deforming operations in the abdomen or especially, end to end anastamosis in gastric and intestinal resections, demonstrated in a group of cases, the ease of this procedure in his hands. His clamp is the important feature of the technic in the end to end anastamosis of stomach and duodenum and the closed method of approximating either small or large gut ends in intestinal resection. He uses scissors for many purposes, puncturing, separating, directing and dividing. There were no rubber protectors on the intestinal clamps. He wears white cotton gloves over rubber gloves. He lifts the peritoneum with cotton gloved fingers in entering it and holds intestines more easily and gently. He is one of the great intestinal surgeons who deftly executes the principles he writes and talks about, many of which seem to be independently developed from his own experience.

Professor Pierre Duval provided for our exceeding pleasure and profit in Paris. Simplicity impresses one in his operating room. He uses one assistant and no scrubbed nurse. A slab table is close at hand and from this, he reaches directly for instruments from a tray and for sponges and packs from containers. In intestinal anastamosis, he used the alteral method without clamps.

Professor Tuffier demonstrated bone graft method of which he is the author, in fixing diseased joints as the knees, sacro-iliac and hip. He said that the point was to get all of the graft buried within bone so that the periosteum may cover.

In the clinic of Proust, the following was said on the use of radiation: for large, bleeding fibroids use X-ray 40 cm. spark gap for one and one-half to two hours every other day for four or more doses; for small bleeding fibroids, use radium in small dosage for several days and for the cases between, use surgery. In a case of sarcoma of the ribs, 3-5 mg. needles were left buried for six days. A similar time and dosage was employed in a carcinoma of the cervix.

At the Curie Institute for research, they advocated in deep therapy frequent dosage (every couple of days) and in the use of radium 80 millecures or 110 mg. left in place for a long time (6 days). For instance, in the use of the latter in the vagina, it was suggested to divide the dosage into three needles.

At Berne, the hospitality of Professor de Quervain and his colleagues could not be surpassed. As the successor of Theodore Kocher, his interest in the thyroid subject is also great. His method of first attacking the blood supply in the large, engorged goiters, so numerous in Switzerland, has added to his renown. He stated that at Berne, the prevalence of enlarged thyroids at 7 years is 74 per cent, and at 60 it is 93 per cent. Fifteen per cent of all operative work in the Berne clinic is thyroid surgery. Graves disease is rare in Switzerland. There were only two cases in the hospital when we were there. Prophylaxis in the schools is an important work. It is carried out in this way: 1-3 mg. of K. I. is used starting at 7 years of age; 40 to 80 mg. is given in a year. This work was first started in France in 1860. An extraordinary group of individuals were presented, representing various types of dwarfism, resultant from thyroid and allied glands disturbance. The deafness, so common, he said he believed due to cerebral etiology.

Through a collar incision, he approaches the gland through two oblique incisions, parallel and near the anterior margin of the sterno-cleido- mastoid muscle. Both inferior and one superior thyroid arteries are ligated and then all other vessels in sight. V incisions are made to remove the excess gland.

This technic is not applicable in the usual thyroidectomy in Michigan, because the glands in Switzerland are not hyper-active. In general, the danger there is the removing of too much gland and here, of not removing enough.

I am told that William J. Mayo once said that Professor Rafaelle Bastinelli, of Rome, is the greatest surgeon on the European continent. In expressing my estimate of the man, I will say that if I had required immediate surgery while in Rome, I would have submitted myself to Bastinelli with every confidence. His dignity, his gentleness, his earnestness and the restrained judgement coupled with deliberate manipulation in operating, won the expressed esteem of all of us. His operating room resembles the American. He uses local anaesthetic frequently for all abdominal operations. On entering the abdomen, he explores thoroughly, first. He prefers not to use clamps in doing stomach or gut anastamosis and he ties all bleeding points. He uses plain catgut throughout and believes it is wise to use it particularly in suturing the cucosa in gastroenterostomy to avoid jejunal ulcer which he thinks is common. For duodenal ulcer, he does a posterior gastrojejunostomy and for stomach ulcer an anterior lateral anastamosis of a long loop of jejunum to the cut end of the stomach.

In removing the kidney, he said that for years he has been of the habit of dissecting the capsule, applying separate clamps for separate tying of each vessel.

In inguinal herniotomy, he resects the cremaster muscle which he uses to cover bulging peritoneum.

In splenectomy he ligates each vessel and objects to clamping the pedicle.

The economic chaos almost excluded the Austrian clinics from our plans. In Germany too, unexpected difficulties made prearrangement for visiting clinics apparently impractible. In one instance, we were visited the night before to be told of the hospitable arrangements that had been provided, but that we should in turn sign a statement that we would aid in every way to re-instate Germany in America. We did not attend the clinic.

Benefit from a clinical tour does not lie, I think, in the large accumulation of new ideas nearly so much as is gained from observing that a single accomplishment may come about through a score or more of methods. In other words, a condition may be handled many ways, almost equally well.

The contrast between European surgery in general and American surgery lies in this idea, in my opinion: American surgeons are eager for the new and when something is proven better than the old, the old is abandoned. I was frequently told that our advancement came about because of our abundance of money. At any rate, I saw in Europe, many practices which I knew had been common practice of American surgeons but abandoned many years since. On this account, I venture to offer a warning to the recent graduate who is planning his developmental years. The danger of improper selection of ideas as many times greater in Europe than in America. One brief illustration is a young man who, after three years in Europe, told me that he was bringing back with him, a quantity of a certain linen for buried sutures and ligatures.

However, we must not be so proud of our advanced status, that we forget the wisdom of the ancients. On the Palatine Hill in Rome, I was shown by the Professor of Archeology of the University of Rome and of London Polytechnic, Luigo Tambolini, a filtration system built 900 B. C. In the Capitolin Museum, there is a statue labeled Giovane Satire 200 B. C., which is the figure of a male with a goat. There are wounds

in the goat's neck and on each side of the human neck, a gland is applied. Tambolini told me that this is said to be a product of the Alexandrian School. Endocrinology is the most modern subject of medicine but here is evidence that glands of internal secretion were receiving some form of consideration more than two thousand years ago.

THE KAHN PRECIPITATION TEST FOR SYPHILIS*

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Ever since the announcement of the Wassermann test in 1906, numerous investigators have occupied themselves with the question of improving the technic or of finding a more simple yet reliable method of detecting the presence of syphilitic infection by an examination of the blood.

Complement fixation methods are laborious and time consuming and possess many inherent sources of error which must be constantly guarded against if the results obtained are to be of clinical value, and while the result of the many refinements and improvements, culminating in the new standardized Kolmer method, has been to give us methods of great accuracy, these newer methods are more cumbersome and time consuming than the old, though undoubtedly far more accurate when properly performed and carefully controlled.

The endeavor to devise a simpler method than the Wassermann reaction for the detection of syphilis started with the work of Fornet and Schereschewsky in 1907, but the first results at all comparable were obtained with precipitation methods by Meinicke in 1917, and Sachs-Georgi the following year. Both methods depend on the production of a precipitate when syphilitic serum and specially prepared antigen are mixed under certain conditions and require from 24 to 48 hours for the completion of the test. There have been numerous refinements of the original method, especially abroad, but the general opinion is that none of these methods will check with the Wassermann reaction in more than 80 per cent of the cases and that the divergence is entirely in favor of the latter method.

In 1922, R. L. Kahn (1) published his modification of the Meinicke method and from time to time since then has suggested variations of his original technic which have tended to increase the accuracy of the results while making the performance of the test more simple and rapid.

We tried out Kahn's original method and have also tested most of the newer procedures suggested by him, but until we undertook the present study we did not find that our results were at all comparable with the Wassermann test.

As the percentage of agreement between the Wassermann and Kahn tests depends largely on the complement-fixation method employed, especially as regards antigens and the time and temperature of the fixation period we give our Wassermann technic below.

WASSERMAN TECHNIC

Total volue, 2.5 c.c., using 0.1 c.c. of serum inactivated 15 minutes at 56°C.

We use the antisheep hemolytic system with 2 units each of complement and of amboceptor as determined by daily titration of complement for 30 minutes in water bath.

As antigens we employ 3 plain alcoholic extracts of beef heart so diluted that the dose employed is at least 1/3 of the hemolytic or anticomplementary amount, while at the same time 1/10 of this daily dose must give complete fixation with a strongly positive serum.

The preliminary fixation is carried out in the ice-box at 6-8°C. for 15-18 hours and with this long fixation period the plain alcoholic extracts give almost as high a percentage of positive reults as do the cholesterinized antigens and at the same time avoid the false positives which the cholesterinized antigens undoubtedly give at times.

For complement we use the pooled sera of several guinea pigs preserved with an equal volume of 8.5 per cent salt solution and kept in the ice box. Before use this complement is diluted with distilled water to make a 10 per cent solution in 0.85 per cent salt.

We find that such salted complement keeps its strength for at least 7 to 10 days and enables us to use pooled sera and also obviates the necessity of having to keep guinea pigs constantly on hand, our supply being purchased only as needed.

All of our tests have been run with Kahn's (2) latest modification, the full details being found in his latest publication.

While a considerable amount of literature on the Kahn test has accumulated it is difficult to evaluate it properly at this time, as nearly all the tests so far reported have been run with one or another of Kahn's older methods which are not as accurate as the present one, and moreover the comparisons have been made with a large number of variations of Wassermann technic and as will be noted the percentage of agreement depends largely on the sensitivity of the Wassermann system employed.

Young (3) reported 5,080 sera with agreement of 93 per cent and with 37 sera negative

*From the Serological Department of the Owen Clinical Laboratory.

with Wassermann reaction, but positive with Kahn, and 14 Wassermann positive, Kahn negative sera, these 51 bloods being from syphilitic patients.

Keim & Wile (4) consider the Kahn test to compare favorably in sensitiveness with the Wassermann reaction, while possessing the advantages of simplicity, rapidity and reduction of errors due to the hemolytic system.

Dulaney (5) obtained identical results in 87 per cent of 900 cases. She found 26 Wassermann positive, Kahn negative sera and 23 Kahn positive, Wassermann negative, these 49 sera all being from clinically syphilitic patients.

She finds the Kahn slightly more sensitive with treated cases than the Wassermann reaction, but says that she at times finds some slight precipitates which do not accord with the clinical findings, but recommends the test as a valuable check on the Wassermann reaction.

Holmes (6) reports 90.4 per cent of complete agreement in 1,000 cases, with 25 positive Wassermann reaction and negative Kahn and 71 Kahn positive, Wassermann reaction negative sera. She considers the Kahn more sensitive, especially in treated cases. It should be noted, however, that she used a 1-hour water-bath fixation method for her Wassermann reaction, this method being much less sensitive than the ice-box technic.

Fox & Sanderson (7) made 1,000 tests on 915 patients with an agreement of 89.6 per cent. Using an 18-hour ice box fixation method with both plain and cholesterinized antigens, they found 25 Wassermann reactions positive, Kahn negative results and eight where the results were reversed. Three clinically negative, septic cases gave positive Kahn and negative Wassermann reaction.

With untreated cases agreement was even higher, but the treated cases often showed complete or partial fixation with the Wassermann reaction while the precipitation test was frankly negative.

They consider the Kahn test about the equal of the 1-hour water-bath method and less dependable than the 4 or 18 hour ice box fixation methods.

They feel that the Kahn test is not as valuable as the Wassermann reaction, but that it possesses decided merit and is of particular value:

1. Where the Wassermann reaction is doubtful or weakly positive.

2. Where the Wassermann reaction is persistently anti-complementary.

3. In emergency cases where an immediate Wassermann reaction is not available.

Osmond and McClean (8) found 77.8 per cent of complete agreement in testing 500 sera with 4.8 per cent in favor of the Wassermann reaction and 17.4 per cent in favor of Kahn.

Hartman and Reyner (9) using the Kolmer technic compared 863 specimens of blood and found 25 per cent more positive results among syphilitic patients with the Wassermann reaction than with the Kahn test.

Wilson and Nedley, (10) working in the Wassermann laboratory of the New York City Board of Health, obtained an agreement of about 82 per cent in testing 480 suspected cases and of 98 per cent among 390 control cases.

They found the Kahn to give a slightly higher percentage of positive results in both classes of cases. In addition they report 5 normal maternity cases positive by Kahn and negative with the Wassermann reaction.

Rockstraw and Bent, (11) reporting 1,022 cases, found an agreement of 96 per cent using cholesterinized antigens with 1-hour water-bath fixation and of 92 per cent when using a 4-hour ice box Wasserman reaction with plain antigens. Comparing the cholesternized antigen with the Kahn they show 2.0 per cent of results in favor of the Wassermann and 1.1 per cent in favor of the Kahn.

They conclude that the Kahn is more sensitive than plain alcoholic antigens with 4-hour ice box fixation and less sensitive than 1-hour water-bath fixation using cholesterinized antigens.

The results obtained with spinal fluids were not satisfactory when the Kahn method was applied.

Ide and Smith (12) found 100 per cent of agreement among 2,165 sera when ++ to ++++ results only were considered, and they recommend the Kahn as a check on the Wassermann reaction.

Detwiler (13) obtained an agreement of 94.2 per cent in testing 1,540 patients with 51 Wassermann reaction positive, Kahn negative cases and 39 Wassermann reaction negative, Kahn positive cases.

He considers the Kahn test as not the equal of the Wassermann reaction, but advises its use as a routine check.

Grant (14) using the human blood cell system with plain alcoholic and Noguchi antigens got 97 per cent of agreement, with the Kahn showing to better advantage than the Wassermann reaction in five cases, but as he only had 17 possible luetics among his cases his results are not of much value.

Havers and Taylor (15) employing the Kolmer method, got complete agreement in 90.3 per cent of 1,395 sera and a relative agreement in 92.7 per cent. There were 55 cases positive to the Wassermann reaction and negative to the Kahn and 40 with negative Wassermann reaction and positive Kahn.

At present, when the two tests do not agree, these authors do not know just what importance to attach to the Kahn positive results.

Strumia, (16) testing 624 sera with the Kolmer and Kahn methods found 83.4 per cent of agreement, with 12 cases positive by Wassermann reaction and negative with Kahn and 74 cases gave negative Wassermann reaction and +— or + Kahn.

He considers that the Kahn test should never be used alone, owing to its tendency to give some false positive results.

Moody, (17) using a ring method modification of the Kahn test and examining 1,500 sera obtained agreement in 98 per cent of his cases with 14 cases positive to Wassermann reaction and negative to Kahn and 3 cases showing the reverse.

Keim (18) in a very thorough and complete comparison of the two tests with especial reference to the clinical condition reports on 1,000 cases, the first 350 examined with one of Kahn's older methods and the last 650 tested by a method practically identical with Kahn's latest modification. His Wassermann technic comprises the use of both 18-hour and 1-hour ice-box fixation, using cholesterinized antigens in both cases.

He considers Kahn's latest modification to possess a higher degree of sensitiveness and to be just as specific as the older methods and moreover to possess the advantage of greater rapidity of reading.

However, he did find some faint precipitates in non-specific cases. There were 10 cases with positive Wassermann reaction and negative Kahn, and 12 with negative Wassermann reaction and positive Kahn.

From the clinical standpoint he summarizes his results as follows:

Primary syphilis—Kahn just as sensitive and possibly more so than Wasserman reaction.

Secondary—All tests positive.

Tertiary:

Osseous system—Kahn more sensitive.
Visceral system—Kahn less sensitive.
Cutaneous—Tests about the same.

Cerebrospinal—Kahn compares favorably with 18-hour fixation Wasserman reaction, better than 1-hour fixation method.

Congenital—Same results as with cerebrospinal syphilis.

Latent—More dependable than the Wassermann reaction.

Non-syphilitic cases—5 false positives with Kahn test and 1 false positive with the Wassermann reaction.

We have summarized the results of these various authors in the table below:

TABLE I.

Author	Wassermann	No. of Cases	Agreement Per Cent	W.R. pos. Kahn neg Per Cent	W.R. neg. Kahn pos Per Cent
Young	1 hr. W. B., C. A.	5080	93	0.3	0.75
	4 hr. I. B. P. A.				
	* C. A.	900	87	2.8	2.5
Dulaney	1 hr. W. B. *	1000	90.4	2.5	7.1
Holmes	18 hr. I. B.	1000	89.6	2.5	0.8
Fox & Sanderson	C. & P. A.				
Osmond & McClean		500	77.8	4.8	17.4
Hartman & Reynor	Kolmer	863	75	25	0
Wilson & Nedley	1 hr. W. B., C. A.	870	87	2.4	9.1
	4 hr. I. B., P. A.				
Rockstraw & Bent	1 hr. W. B., C. A.	1022	94	2.6	1.1
	4 hr. I. B. P. A.				
Ide & Smith	18 hr. I. B., C. A.	2165	100	0	0
	18 hr. I. B., K. A.				
Detweiler	* C. A.	1540	94.2	5.8	2.5
Grant	* P. A. N. A.	170	97	0	3
Havers & Taylor	Kolmer	1395	92.7	3.9	2.8
Strumia	Kolmer	624	83.4	1.9	0
Moody	* P. A., C. A.	1500	98	0.9	0.2
Keim	18 hr. I. B., C. A.	1000	93	1.0	1.2
	1 hr. I. B., C. A.				

*Antigens or fixation time not given.

W. B.—Water Bath. C. A.—Cholesternized Antigen. N. A.—Noguchi Antigen.
I. B.—Ice Box. P. A.—Plain Alcoholic Antigen. K. A.—Kolmer Antigen.

Our own experience with Kahn's latest modification of his precipitation test comprises the examination of sera from 2,000 patients. Whenever there was a wide divergence in the results of the precipitation and Wassermann tests we repeated the examinations on the same specimen and when possible secured another specimen from the same source.

We found Kahn's new method much more reliable than the older ones and in addition it possesses the great advantage of rapidity in reading the results.

However, while it is comparatively easy to determine the presence or absence in any one tube and relatively simple to say whether the precipitate represents a + or ++++ reaction, we find that with three of us reading the results that we differ quite widely on many specimens as to whether to call the precipitate a ++ or +++ reaction, but after all this does not materially affect the value of the test and a greater experience may lead us to more uniform readings.

We have also learned to attach but little significance to precipitates which can not be distinguished easily with the naked eye, as in our experience it is not at all uncommon to find

minute precipitates in the sera from normal individuals and this same observation has been made by a number of other investigators. In other words, we feel that but little significance should be attached to such +— and + reactions in using the precipitation test.

Moreover, we find that in making up different lots of diluted antigen that at times we get a batch that tends to give false precipitates so it is just as necessary to carefully control this test as it is the Wassermann, and whenever we get a number of weak precipitates in a certain series of tests we feel the necessity of repeating the run with another lot of freshly made antigen.

In our series of 2,000 cases there were 1,781 (89.5 per cent) which checked absolutely with the Wassermann reaction and if we group the ++++, +++ and negative reactions together we get what might be called a "diagnostic check" in 1,811 (90.5 per cent) of the cases.

All untreated cases of active syphilis gave uniformly positive results with both methods as was to be expected, but when we took up the question of treated cases a wide diversity of results was found ranging from ++++ or +++ with one method and negative with the other, to lesser degrees of divergence.

Examining only those cases where one method showed a reaction of diagnostic strength (++++ or +++) while the other was of lesser degree, we find 105 cases grouped as follows:

Wassermann ++++ or +++, Kahn 0	16 (0.5 %)
Wassermann ++++ or +++, Kahn +	19 (0.95%)
Wassermann ++++ or +++, Kahn ++	30 (1.5 %)
Wassermann more strongly positive than Kahn	59 (2.95%)
Kahn ++++ or +++, Wassermann 0	16 (0.8%
Kahn ++++ or +++, Wassermann +	13 (0.65%)
Kahn ++++ or +++, Wassermann ++	17 (0.85%)
Kahn more strongly positive than Wassermann	46 (2.3 %)

While the question of the variation of the strength of the reaction obtained with the two methods is of interest yet in our opinion the great significance of these results lies in the fact that there were 10 cases with strongly positive Wassermann reactions and negative Kahn on the one hand and 16 where exactly the reverse was true. In other words, had dependence been placed on only one method of examination, from 0.5 to 0.8 per cent of the positive results would have been missed.

The 26 cases showing marked divergence are tabulated below and it will be noted that 9 of the 10 Wassermann positive, Kahn negative cases give a definite history of treatment.

Among the 16 Kahn positive, Wassermann negative cases, there were 3 where we were unable to obtain any history.

Case 3809, a chancre of 2 week's duration with Treponema pallidum present, apparently shows an earlier reaction with the Kahn than is obtained with the Wassermann, but an extended series of observations of such primary cases has failed to corroborate this belief. This series of primary cases we expect to report later.

Case 4293, a patient with a sore clinically chancroid, with a negative dark field and repeatedly negative Wassermann reactions extending over a period of 64 days after the appearance of the sore, gave a ++++ Kahn at the first examination, a ++ at a subsequent test and | at the time of the final examination. There was no history of any previous infection. With several other sera we have likewise found a very definite precipitate at one examiantion and none when the test was repeated, so we feel that with the Kahn as well as the Wassermann reaction it is possible to get false positives due to some technical error.

Wassermann ++++ or +++, Kahn negative.

1. 3788—Treated. Chancre 2 mos. ago. 2 mos. later both K and W neg.
2. 3796—Treated. Wife shows ++++ Kahn and Wassermann.
3. 3901—Treated.
4. 3960—Treated.
5. 4018—Treated.
6. 4108—Treated.
7. 4519—Treated.
8. 4612—Treated.
9. 4673—Treated.
10. 5365— ?

Kahn ++++ or +++, Wassermann negative.

1. 3224—Treated.
2. 3544—Treated.
3. 3709—Chancre 2 weeks T. P. present.
4. 3668—Treated.
5. 3720—Treated.
6. 3918—Treated.
7. 3937— ?
8. 3938— ?
9. 4043— ?
10. 4311—Treated.
11. 4279—Treated—after further treatment gave K +++ W ++.
12. 4293—Sore 50 days clin. chancroid. No T. P. denies previous infection. 1 week later, K. ++, W. 0. 64 days—Wass. 0, Kahn +—
13. 4345—Treated case.
14. 4383—Treated.
15. 4443—Treated.
16. 5193—Treated.

TABLE II.

Summary of 2,000 Kahn and Wassermann tests.

	Wassermann				
	xxxx	xxx	xx	x	0
* x x x x	233	8	9	4	5
x x x	22	12	8	9	11
x x	28	2	12	6	12
x	9	10	7	9	45
0	8	2	7	7	1515

*Kahn.

We feel most strongly that the Kahn test as at present developed should not be used as a substitute for the Wassermann reaction, but that its use as a simple and rapid check on the Wassermann reaction is of great value and where we have a whole set of positive or negative sera in a days run the corroborative value of an accompanying Kahn enables us to report our Wassermann results with an assurance of technical accuracy hitherto lacking.

Moreover, as shown above, there are undoubtedly some treated cases which will show positive Kahn reaction and negative Wassermann tests, but exactly what significance to attach to such results as regards further treatment must be left to future clinical investigation.

Certainly such cases should be subjected to close clinical scrutiny and further serological study.

CONCLUSIONS

1. The results obtained with the Kahn and Wassermann tests by different observers depend largely on the Wassermann technic employed.

Where the 1-hour preliminary fixation Wassermann method is used the Kahn gives a much higher percentage of positive results, but with the more recent 4 to 18-hour ice box fixation methods using plain or cholesterinized antigens the results obtained by different observers check very well.

Practically all observers find a certain small percentage of cases which are poitive with the Wassermann and negative with the Kahn and likewise a certain number giving strongly positive Kahn tests and negative Wassermann reactions. This divergence is confined almost exclusively to treated cases.

Using an 18-hour ice box fixation method with plain alcoholic heart extracts we obtained a practical check in 90 per cent of 2,000 cases.

Where the two methods check we feel a much greater assurance in reporting our results than we formerly had.

Where the results show a radical difference we always repeat the tests with both methods before reporting the results and in this way endeavor to eliminate any technical error which may be present. If a check is again lacking we endeavor to secure another specimen before making a final report.

We find that a not inconsiderable number of sera may show very slight precipitates and consequently do not attach much importance to +— and + reactions as obtained with this test.

Owing to the delicate balance of the antigen salt solution mixture careful controls of the Kahn method are just as essential as those used in the Wassermann test.

From our experience to date we would most certainly hesitate to place the same reliance on the Kahn method that we do on the Wassermann except in the case of frankly negative or strongly positive reactions.

The occasional use of the Kahn test by technicians who lack the proper facilities for positive and negative controls and who are not running a number of bloods at one time where by some check on the test is obtained is just as full of pitfalls as the use of the Wassermann test under the same conditions.

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MODERN CONCEPTIONS OF HEART DISEASE*

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Within the last decade and a half our knowledge of heart disease has been greatly augmented by the vigorous application of all the advanced methods of the fundamental sciences. The conceptions of the etiology, of the anatomical and functional changes, and of the effects of drugs have been altered, but at the same time made definite and logical. Much of the data elicited by the methods of precision has found direct clinical application and has made possible the accurate bedside diagnosis and treatment of practically ninety per cent of all cardiac cases.

The patient's *history,* carefully taken, reveals much of the information as to the etiological factor that might be at the bottom of the disturbance. In this connection we inquire carefully as to whether or not the patient has suffered from "growing pains" in childhood, repeated attacks of tonsillitis, acute rheumatic fever, chorea, or any other severe infectious disease, syphilis, or toxic goitre.

The symptomatology is, however, quite important in diagnosis, especially in individuals with paroxysmal attacks of breathlessness, palpitation, syncope, cyanosis or cardiac pain. The details of the time of onset, character and duration of any symptoms are indispensable. Furthermore, the limitations of the patient's activity are, in most instances, accurately defined in the history, and the functional state of the cardiac muscle; that is, the type and degree of heart failure is, as a rule, quite evident. The history, however, except in occasional cases of angina pectoris, is by no means the final evidence upon which conclusions are based as the facts are of a subjective nature.

The *physical examination* reveals the objective signs to corroborate or invalidate the conclusions drawn from the history, as to the etiology, the functional efficiency, and the probable anatomic lesion of the damaged heart. The patient's general condition is established by careful general inspection. The skin and mucous membranes are examined for petechiae. The signs of cardiac failure, such as orthopnea, cyanosis, engorged neck veins, oedema and congestion of the liver are promptly looked for. Then a detailed study of heart and blood vessels is made, noting any abnormal pulsations, thrills or shocks. The position of the apex impulse is the most reliable clinical or bedside index as to the size of the heart. Changes in the intensity and character of the heart sounds and systolic and diastolic murmurs are listened for after deep expiration and in various positions. The rate and the rhythm are determined and the effects of vagus or ocular pressure and measured exercise or amyl nitrite upon these are determined. The character of the walls of the peripheral arteries, the pulse and the blood pressure are noted. The lungs and all the serous cavities are examined for fluid accumulation. The liver edge and the spleen are palpated for tenderness, consistency and size, as evidences of the degree of congestive engorgement and consequently the extent of heart failure. The subcutaneous tissues in the dependent parts are pressed for the pitting of oedema. The urine is examined for albumin, casts and red blood cells.

With this routine in mind we can proceed to the study of some of the commoner types of cardiac disturbances, discussing briefly the outstanding significant facts in the etiology, the reliable diagnostic criteria and accepted therapeutic measures.

RHEUMATIC HEART DISEASE

Acute rheumatic fever, the organism of which still remains unknown, is the great cause of heart disease in adolescence and early adult life. The contagiousness of the infection, as pointed out by Garnet, St. Lawrence and others, warrants moderate isolation. The infection is most protean in its manifestations, but usually presents certain characteristics. The acute, usually inflammatory, migratory joint involvement in which subsequently the signs totally disappear and the purposeless movements and grimaces in choreics are typical rheumatic manifestations.

The heart is very susceptible to involvement and in a large percentage of acute cases electrocardiographic changes have been noted by Cohn and Swift. It, therefore, seems rational to institute vigorous treatment with salicylates, which are the nearest to a specific anti-rheumatic drug that we possess. The drug may be given by mouth with alkalies, rectally in boiled starch enemata, subcutaneously, intramuscularly, intrasynovially. Adequate dosage continued for long periods , in the experience of George Dock is our best hope for success in the prevention of cardiac complications and recurrences. During the acute stage 2 to 3 grs. per pound (0.1 gm. per kilo) a total of 150 to 200 grains (10-15 gm.) should be administered daily for at least two weeks after the temperature has become normal and if no intolerance appears, until the joints clear up. In case of intolerance evidenced by cerebral symptoms or hematuria, after a day or two of limitation the dosage may be gradually stepped up and continued high another two weeks. The dose is then reduced

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*Read in part before the Academy of Medicine at Kalamazoo, June 17th, 1924.

And in part before the Genesee County Medical Society at Flint, October 15th, 1924.

to one-half and continued for half a year, and then to one-quarter of the original dose, on which the patient should be kept for a year or two.

The statistics of St. Lawrence in New York on the effect of tonsillectomy on recurrences of acute rheumatic fever, seem to indicate that tonsillectomy is the most important recurrence prevention measure available at the present time. The figures of Hunt and Osman at Guy's Hospital, London, however, do not corroborate this entirely. Although we have not disproven the dictum, "Once rheumatic always rheumatic," we still feel that the above measures are distinctly worth while in the protection of the heart. The acute pericardial, myocardial, endocardial and conduction disturbances in rheumatic fever cannot be gone into in this paper.

The common type of rheumatic heart disease that we see is the healed valvulitis with its progressively contracting scar, producing the typical button-hole or fish-mouth mitral stenosis with some insufficiency or the aortic insufficiency with some stenosis. The pathogenic signs of these lesions will bear repeating.

Mitral stenosis is characterized by the localized apical low-pitched mid or late diastolic rumble, which may be crescendo in type and end in a snapping mitral first sound. An accentuated and often reduplicated pulmonary second sound and an aortic second sound that is distinctly diminished in intensity are characteristic secondary signs. The palpable counterparts of the auditory phenomena are often present in an apical diastolic thrill and systolic shock and a diastolic shock in the pulmonary area. The pulse is small, due to the small pulse pressure. There is usually an accompanying mitral insufficiency which presents an apical blowing systolic murmur that is transmitted to the axilla.

Aortic insufficiency is characterized by a high-pitched early diastolic murmur, usually audible at the aortic cartilage but best heard along the left border of the sternum. The aortic second sound is usually diminished in intensity. The pulse is of a water hammer type, due to a high pulse pressure. The peripheral vessels may throb and a pistol shot sound and the diastolic Duroziez's murmur may be heard over the compressed femoral artery. A capillary pulse which is a secondary phenomenon is usually present. The presence of a loud, rough aortic systolic murmur heard over the aortic area and transmitted into the neck vessels accompanied by a systolic thrill and an anacrotic plateau, or "double humped" pulse indicates an aortic stenosis which occasionally results from rheumatic aortic valvulitis.

These lesions are frequently both present in the same patient and one then finds a combination of the peripheral vascular phenomena, the picture depending upon which lesion predominates. Tricuspid stenosis and insufficiency accompany the other rheumatic lesions in a small percentage of cases.

As long as there is no irregularity of the cardiac rhythm and no evidence of heart failure these patients need no treatment other than general hygienic measures, advice and reassurance. They should be warned against taking part in competitive athletics and attempting any sudden undue exertion and to quit any task when breathlessness is experienced. The patient should not be kept in bed but should spare his myocardium every strain, for besides the mechanical embarrassment incident to the valve lesion it must be remembered that the heart muscle is always damaged to a greater or less extent in rheumatic fever with valvulitis.

One other danger that the patient with the healed scar of rheumatic valvulitis must be guarded against is the engrafting of a subacute streptococcus viridans endocarditis upon the damaged valve. This susceptibility of scarred heart valves to subsequent endocarditis is strikingly shown in our series of dogs with experimentally produced aortic insufficiencies which can be easily infected and which often developed a streptococcus endocarditis spontaneously, while not one infected valve was found in a control series of 200 dogs taken at random from the pound. Treatment of endocarditis, even with the powerful germicidal dyes is rivanol or acriflavine intravenously, has not been very encouraging. We must, therefore, see to it that our patients with chronic vcalvular disease have all possible foci of infection, as apical abscesses, septic tonsils, etc., eradicated, and furthermore that they get to bed and call for medical attention with every infection no matter how mild it may seem to be.

Finally, the patients with rheumatic heart disease begin to suffer from cardiac failure and practically all cases with mitral stenosis eventually develop an absolute irregularity with a pulsus deficit, that is, auricular fibrillation. Digitalis is then used, as will be described later, to strengthen the myocardium and control the disturbed cardiac mechanism.

SYPHILITIC HEART DISEASE

Syphilis must involve the heart and great vessels during its acute stage, but signs or proofs for this assumption are still wanting. Nevertheless, every patient with a chancre should be looked upon as a potential chronic sufferer of heart disease or some other late vascular manifestation of tertiary lues and consequently should receive an intensive course of arsphenamine, mercury and iodides.

In time statistics will be available as to the efficacy of this treatment in the prevention of

the late complications of syphilis. At present we are for the most part fairly optimistic in cases that have been adequately treated early and especially those that have not developed the generalized secondary rash, nor a positive complement fixation test. The cardiac complications of tertiary lues are usually latent and manifest themselves ten to twenty or more years after infection.

Aortic insufficiency of a very free type, due to dilation of the root of the aorta is the usual lesion of syphilitic origin. The signs are similar to those given above for aortic insufficiency with the peripheral vascular phenomena much more prominent as a rule. The high-pitched, often musical, early aortic diastolic murmur that is heard in the second right interspace and in the third and fourth left interspaces. The aortic second sound is often entirely replaced but may persist as a liquid, bell-like, hollow, metallic sound. The heart is usually greatly enlarged and the maximum impulse of the powerful apex heave is in the sixth interspace and outside the midclavicular line. The carotids, subclavians and brachials are usually seen to throb. The pulse is typically collapsing and the pistol shot and diastolic murmur are heard over the compressed femoral artery. Digital pulsation and the capillary pulse are present. A rough systolic murmur that is transmitted to the neck vessels accompanied by a systolic thrill without an anacrotic wave or plateau pulse may be present as evidence of an aortitis. A late diastolic rumble, the Austin-Flint rumble, is not infrequently heard at the apex, due to the functional narrowing of the mitral orifice. The Austin-Flint murmur may occasionally be accompanied by a diastolic thrill and can be differentiated from a true organic narrowing, a mitral stenosis, with difficulty, by the presence of the exaggerated peripheral phenonena and evidences of syphilis and the absence of the accentuated pulmonary second sound, the modified pulse, auricular fibrillation, and other evidences of an old rheumatic fever infection.

Syphilitic heart lesions when not causing heart failure symptoms, do not require cardiac drugs, and are furthermore prone to progress unfavorably under intravenous arsphenamine treatment. We have had a number of apparently suitable and prepared cases that have been made worse by even small doses of arsenicals carefully administered. We, therefore, advise only mercury inunctions or injections and potassium iodide in this type of case. The restrictions against the overstepping of the limits of physical tolerance, as indicated by breathlessness, should be most rigidly drawn up and the dangers of strain impressed upon the patient. The appearance of the signs of heart failure in a patient with syphilitic heart disease is an ill omen. The restoration of the patient to a level of exercise tolerance compatible with comfort is often a difficult task and requires months of rest in bed to insure any permanency of the relief. Once the syphilitic cardiac involvement has become sufficient to produce symptoms of cardiac failure, a fairly rapid progress downward is to be expected in spite of careful treatment.

In syphilitic heart disease, auricular fibrillation rarely occurs which is in direct contrast to rheumatic heart disease, which almost always eventually results in auricular fibrillation. Nevertheless, when there is cardiac failure in a case with a syphilitic or any other type of lesion and a regular rhythm, digitalization will produce favorable results as Christian and others have shown.

OTHER INFECTIOUS DISEASES

Other infectious diseases may at times produce heart disease which is usually of an acute malignant and fatal type of endocarditis or pericarditis. The common invading organisms are pneumococci, streptococci and gonococci, B. influenzae and tubercle bacilli. These infections produce heart lesions accompanied by a septic fever, anemia, wasting and often embolism to the skin producing petechiae, to the spleen causing enlargement, to the kidneys with a resulting hematuria, etc. The treatment in most instances is expectant, since pneumococcus type I is the only organism for which there is an antiserum. Arsenicals and powerful germicidal dyes used intravenously offer some hope, but not very much at present. Pericardial inflammations with effusion sufficiently great to produce cardiac embarassment by tampon action should be drained, washed with germicidal dyes and air or oxygen injected. This often relieves the pain and promotes healing just as a pneumothorax often does in a case of pleurisy. The few patients that recover from these acute cardiac infections have either organic valve lesions or pericardial adhesions and may eventually suffer from cardiac failure.

A goodly number of patients, some with and some without organic valvular lesions are found who date all of their cardiac symptoms from an attack of influenza. This, of course, merely suggests that the myocardium underwent changes similar to or perhaps slightly more extensive than one might expect with any acute infection, enough, however, to precipitate cardiac weakness.

NON-INFECTIOUS CAUSES OF HEART DISEASE

Rheumatic fever and syphilis produce very definite valve lesions which embarrass the cardiac function, but as pointed out, the lesions which are the really serious ones and upon which the prognosis really depends

are those that are invariably present in the myocardium in these infections.

The group of cases that we are now to discuss present no significant valvular defects but definite myocardial weakness and damage. The term *chronic myocarditis* is applied to this type of heart disease, and should be reserved and not used in cases of organic valve lesions since it is generally recognized that these invariably have important myocardial changes.

Chronic myocarditis is most common in individuals past middle life and the associated degenerative conditions are considered to be the causes. Arteriosclerosis which may or may not be evident in the peripheral vessels, associated with or not associated with high blood pressure or kidney lesions produces myocardial changes. In some cases there may be a degenerative arteriosclerotic valvulitis with calcareous deposits which may produce harsh and even musical mitral and aortic murmurs. The blowing mitral systolic murmur is, however, of little significance. The diagnosis is somewhat indirect and inferential for there are few direct signs. In the presence of any one of the associated degenerative conditions arteriosclerosis, hypertension or chronic nephritis the diagnosis is justifiable, even though the signs of impaired function are not evident. Toxic goitre not infrequently produces severe degenerative changes in the heart muscle, thus producing a chronic myocarditis.

Enlargement of the heart in the absence of organic valve lesions, whether due to hypertrophy or dilation or both, is a reliable sign of chronic myocarditis. Cardiac hypertrophy from the clinical viewpoint never seems to be definitely beneficial and usually appears to be distinctly detrimental. The phenomenon is not manifestly compensatory for in many instances the stimulus of excessive work is not apparent. Then, too, it is common knowledge that the larger the heart the more severe and extensive the damage.

Certain *important disturbances of the mechanism* of the heart beat, such as alternation, heart block, auricular flutter and auricular fibrillation when persistent are evidence enough for the diagnosis of chronic myocarditis. These disturbances frequently develop in hearts damaged by the degenerative disease processes. In young adults the rhythm disturbances are in rare instances due to toxic goitre myocarditis, but more commonly the result of rheumatic mitral stenosis and myocarditis.

Alternation is the presence of a distinct weakness of every other pulse beat. The time intervals between the beats are all of equal length; that is, there is no disturbance of rhythm, especially no coupling of beats, such as one gets in bigeminy when every other beat is a premature contraction (extrasystole) followed by a compensatory pause. Alternation is often missed unless especially looked for during the taking of the blood pressure, when it is noted that only half the pulse beats come through at the first systolic blood pressure level, while at a level 10 to 40 mm. lower all of the pulse beats come through to the wrist. Alternation is a grave prognostic sign of a failing myocardium.

Heart block is the aborting of the impulse that initiates contraction at any point in the specialized conduction system of the heart, the sino-auricular node, the auriculo-ventricular node, bundle or bundle branches. Block results in true completely "dropped beats" except where there is only prolonged a. v. conduction time or bundle branch block. The latter two exceptions require instruments of precision such as the electrocardiograph for their detection, the others, however,, may be quite accurately diagnosed by clinical means. The rhythms are usually regular and slow and on exercise are not changed at all, if due to complete block or jump up by multiples of the rate if due to partial block. There is a disappearance of the disturbance when the heart rate is increased to 120 and as the rate drops after exercise there will be noted by an examiner with a stethescope over the apex and his fingers on the carotid or radial artery a completely dropped out beat when the rate gets low enough. This absence of any sound at the apex differentiates the disturbance from a premature contraction which would give forth a premature sound at the apex and the pulse wave may or may not be transmitted to the carotid or radial, just preceding the pause. Atropine in many instances relieves the block. Heart blocks are evidences of damage to the special conduction tissues, and damage to the latter can practically never occur in patients without concomitant damage to the heart muscle.

Auricular flutter is a rapid, usually regular rhythm, due, as Lewis has shown, to stimulation of the auricle by a single and continuous wave, circulating usually around the mouths of the cavae at a rate of 220 to 350 per minute. The auricular action is rapid and weak and usually only every other impulse is conducted to the ventricle with the result that the ventricular rate is only half that of the auricle. The auriculo-ventricular bundle is usually very easily influence by vagus stimulation to block off more auricular impulses and, consequently, vagus pressure produces temporarily a very high grade block with a slow irregular ventricular rate. Vagus pressure usually has very little, if any, effect on fibrillation. Auricular flutter can usually be changed to fibrillation by digitalization and then sometimes the fibrillation will give way to normal rhythm. Quinidin

may change flutter into normal rhythm directly, but we feel that digitalization is safer.

Auricular fibrillation has been shown by Lewis to be intimately related to flutter, differing in that instead of the single circus wave, there are circulating sinuous waves propagated and revolving perpetually following varying re-entrant paths of least resistance,generating impulses irregularly at a rate of 450 to 600 per minute. The auricular activity consists in fibrillary twitchings, with no contractions and consequently dilation and engorgement. The auriculo-ventricular conduction bundle is showered with a great number of haphazard impulses of varying intensity. The more intense irregular impulses are conducted to the ventricle and the irregular ventricular action results. Many of the ventricular contractions are to weak to open the aortic valves, and consequently do not reach the radial, thus producing the so-called pulsus deficit.

Auricular fibrillation is the most important irregularity to differentiate for it is the source of much cardiac embarrassment if left uncontrolled and usually responds so spectacularly to digitalis. The differentiation is quite simple and can be carried out by increasing the heart rate by exercise or amyl nitrite. Any irregularity which persists when the heart rate rises to 140 per minute is auricular fibrillation; that is, while speeding up the heart exaggerates auricular fibrillation it clears up all other irregularity.

Auricular fibrillation is the result of myocardial damage and consequently indicates heart disease.

TREATMENT

Quinidin, which establishes a normal mechanism in many cases of irregularity, is gradually falling into disrepute. Following the methods of Frey who has done the most work on this subject, we have used a preliminary test dose of 2 grains (.1 G) to guard against idiosyncrasy to the drug. With no evidence of hypersusceptibility the drug was administered in 3 grain doses, gradually increasing to 7.5 grains (.4G) doses three times daily, the period of treatment totaling six to eight days. Occasionally larger doses were used and occasionally the drug was used over a longer period. Our results correspond to those of the many other observers in that in 40 to 50 per cent of the cases we were able to re-establish the normal mechanism. Our post-operative auricular fibrillation cases responded most uniformly and especially well when the etiology was toxic goitre or arteriosclerotic heart disease. Recent cases responded most readily and most permanently. Cases of long standing were more refractive to treatment and more treacherous because of the danger of thrombus formation in the dilated non-contracting fibrillating auricles during the long period of stasis. Bits of the thrombus may break off with the re-establishment of auricular contractions and result in serious embolism. If there are any signs of cardiac failure, the patients should be thoroughly digitalized and not cinchonized. Even when quindin therapy is successful, the re-established normal mechanism is often of only short duration. Quinidin cannot be given continuously because it produces myocardial weakness. In spite of the fact that normal mechanism is the most conservative, it is a question whether quinidin is advisable in these cases in preference to digitalis, for in most cases the establishment of normal mechanism in itself does not restore or improve the cardiac function.

Digitalis produces striking and reliable effects in auricular fibrillation and flutter. The type of digitalis preparation used, the method of administration, the dosage, and the criteria which determine the further management of these cases, warrant some discussion. It is of primary importance to use a fresh, active digitalis preparation which has been preferably standardized or assayed by the Cat Method. The Cat Unit being the weight of dry drug in milligrams, which is required to kill one kilogram of cat when the solution is slowly and continuously injected intravenously. High grade specimens of digitalis when not assayed by the Cat Method may be regarded according to Eggleston as having an average activity of 100 mg. to the Cat Unit, but not more than 75 per cent of the calculated total amount should be given in the first three doses. Likewise, when the patient's weight is not obtainable, due to his poor general condition or generalized edema, estimations of the true body weight are to be made as accurately as possible and not more than 75 per cent of the calculated total amount should be given in the first three doses. Adequate dosage, sufficient to produce prompt digitalization, is *the* important factor in treatment.

The average total amount to be administered by mouth to man is 0.15 Cat Unit per pound of body weight. The calculation of the average total amount of the drug is then made according to the formula for the type of drug used.

$$\text{Grams of powdered leaf in total amount} = \frac{\text{Mg. to Cat Unit} \times 0.15 \times \text{Weight in Pounds}}{1000}$$

$$\text{Cubic Centimeters of tincture in total amount} = \frac{\text{Mg. to Cat Unit} \times 0.15 \times \text{Weight in Pounds}}{100}$$

$$\text{Cubic Centimeters of infusion in total amount} = \frac{\text{Mg. to Cat Unit} \times \text{Weight in Pounds}}{100}$$

With a standardized preparation, the average total amount for a man of 150 pounds is

2.25 grams (34 grains) of the powdered leaf, 22.5 c.c. (4.5 plus fl. drams) of the tincture or 150 c.c. (5 ounces) of the infusion.

Pardee gives a similar method for estimating the amount of the tincture, which is the most widely used and most generally satisfactory preparation. He advises calculating on the use of 2 minims of standardized tincture per pound of body weight. For the man of 150 pounds this would allow 300 minims or 20 c.c. (4 fl. drams) of the tincture.

The method of administration of the total calculated amount is the next important point. Robinson reported the use of the drug in a single massive dose with demonstrable clinical results, as early as three hours after the administration and always within 18 to 24 hours. For experimental purposes the single massive dose is advisable, but it is not entirely free from dangers. Eggleston's methods are safer and very effective. When the patient has received no digitalis within the preceding ten days, in urgent cases 1/3 to 1/2 of the total calculated amount is given in the first dose. After six hours 1/5 to 1/4 of the total amount, after the second six hours 1/8 to 1/6 of the total amount and every six hours thereafter 1/10 the until effect. If the patient has received digitalization. In non-urgent cases 1/4 of the calculated total amount at each of the first two doses six hours apart and thereafter 1/10 to 1/8 of the calculated total every six hours until ecect. If the patient has received digitalis within ten days and there are no evidences of effect, the total amount should be reduced to 75 per cent of the total calculated amount. If there are evidences of partial digitalization it is safest to use not more than 50 per cent of the total calculated.

The signs of digitalization are similar to those of slight digitalis poisoning. In auricular fibrillation, the auricular activity is not affected, but through action on the vagus, the His bundle conduction is greatly reduced, and only the stronger impulses at less frequent intervals are conducted. The ventricular activity is slower, more regular and more effective, so that with each ventricular contraction the aortic valve is opened and the pulse comes through to the peripheral arteries. The pulse deficit disappears, that is, the apex rate and the radial rate become the same, which is one of the results sought in digitalization. The drug is continued further until the apex rate is about 70 or slightly less, at which rate it should be maintained continuously. Nausea and vomiting after digitalization has been under way for some days; a fall of the heart rate to 60 per minute or lower; and the appearance of frequent extrasystoles or a coupling due to bigeminy are signs of adequate digitalization and indicate a temporary discontinuation of the drug.

Digitalis therapy must be kept up in all cases of fibrillation. After digitalization, a patient will lose the digitalis equivalent of 20 minims, 20 to 30 drops, of the standard tincture per day. Consequently, to keep a patient digitalized with the heart rate at 70, he must receive this amount of drug daily. The effects of the calculated total amount are dissipated within a week to ten days, and therefore the small doses must be begun soon after digitalization. Thirty drops each morning or ten drops of the tincture t. i. d. are continued. After a week or so, the patient may again experience nausea, the drug is again temporarily withheld, and the dosage dropped to twenty drops of the tincture per day. The heart rate at the apex must be frequently counted as an index of effective therapy, which should keep it down to about 70 per minute.

Along with the specific therapy, the general measures are most important, as George Dock and others have long maintained. Rest in bed in Fowler's position, with morphine in full doses to promote sleep and complete relaxation are necessary adjuncts in the treatment of heart disease. A limitation of the fluid intake to 1000 c.c. (5 glasses) is of value especially in edematous cases, together with a low protein salt poor diet; all of these requirements are met by the Karell diet of 800 c.c. (4 glasses) of milk only per day. An increase in the fluid output also aids considerable in cases of heart failure with edema. This can be attempted by the Hay concentrated cathartic salts method in which 5 to 15 grams (½ to 1 ounce) of Glauber's or Epsom salts, in not more than a half glass of water, are administered three times daily for five to seven days. This treatment, however, is too drastic, and the dissipation of cardiac energy and reserve that is required in the maneuvers of getting on and off the bed pan or toilet defeats the end hoped for in the extraction of the reduction of the plethora by the extraction of fluid. Diuresis by theocin .2 to .5 gm. (2 to 7 grains) for three doses at three hour intervals in edematous cardiac cases that have had digitalis has been proven to be effective by Christian. Vemesection with the removal of 500 c.c. of blood frequently benefits a failing heart and often changes a picture of despair to one of hope. Massage, passive movements, resistant movements, and graduated exercises are rational methods of preparing a convalescent cardiac for getting up and about and eventually back to work.

In heart failure without disturbance in the rhythm digitalization should be carried out in the same way and the results while not so spectacular are nevertheless usually quite satisfactory as pointed out by Christian and others.

Here again the drug must be active and the dosage sufficient.

In partial heart block, especially in the sclerotic high tension case, digitalis by its action on the vagus and His bundle, increasing the block, may precipitate Adams-Stokes attacks. The patient might die in one of the attacks, or on the other hand, the slow rate of a damaged heart may embarrass the circulation to the point of heart failure because of an inadequate minute volume output. A clear conception of the disturbed mechanism as well as of the pharmacologic action of drugs allows one to use digitalis for its diuretic effect and whatever effect it may have on the heart muscle, even in the presence of heart block. In this connection, the use of atropin in 1/50 grain doses once per day and in any emergency makes safe the administration of digitalis to the point of getting beneficial effects.

Digitalis cannot be indiscriminately given in one and all types of heart disease. Recent careful studies by McCullough based on electrocardiographic as well as clinical and pathological observations show that digitalis is contraindicated in diphtheritic heart disease with its widespread acute myocarditis and conduction disturbances. Our animal work also suggests a possible contraindication to digitalization in cases with very high ventricular rates of 200 or more per minute for digitalized dogs' hearts when stimulated at such rates not infrequently went into ventricular fibrillation which practically always spells exitus. However, these two probable contraindications are greatly outweighed by the many indications for digitalis, extreme conditions which are so often promptly and conspicuously benefitted.

A FURTHER STUDY OF THE PHLORIDZIN TEST IN THE EARLY DIAGNOSIS OF PREGNANCY

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In an earlier article on this subject the writer mentioned the importance of finding a trustworthy method of early diagnosis of pregnancy from a medico-legal standpoint; also the importance attached to such an early diagnosis from the patient's viewpoint; and I wish at this time to lay more stress upon it from the satisfaction it gives the obstetrician. We can all recall the many instances in our practice, when after completing the usual examination for pregnancy, had to ask our patients to return in two weeks or three weeks before we can tell them, with any degree of accuracy, whether or not they are pregnant. Therefore it is with a great deal of satisfaction that during the past year I have been able to say to the woman with a suspected pregnancy that we have a new test which helps us to determine at an earlier period, and with considerable accuracy, the early pregnant state. I find that both the clinic and private patients readily agree to whatever time and inconvenience is attached to the carrying out of the details of such an examination. Practically all of our patients are in an unsettled frame of mind, and are anxious to know their exact condition as early as possible, and I have not found one who has objected. Several I have had return for a check on the results, and they also have readily agreed.

The technique of the Phloridzin test is no doubt familiar to all now, as the literature for the past year has contained a number of articles on the subject and the earlier ones, at least, described fully the details of the test. Kamnitzer and Joseph, working at the Municipal Hospital, Berlin, were the first to formulate definite rules. They have continued to lead in the work and report a much larger number of cases than any one in this country. It is their technique we have followed, with the exception of a few minor details. With further experience we have been able to eliminate some of the objectionable features without interfering with the results.

In the first twenty cases reported, and published in the May number of the Michigan State Medical Journal, we had our patients remain for the full one and one-half hours—obtaining the control specimen and three thirty-minute specimens. This we find is not necessary for many of the cases. If the control test is negative, and the first specimen obtained, thirty minutes after the injection is a definite positive reaction there is nothing further to be gained by obtaining more samples as far as diagnosis of pregnancy is concerned. If, however, as is sometimes the case, the first thirty-minute sample is negative, the second thirty-minute sample must be examined and the third one may be necessary and should always be secured and tested if there is any doubt of the reaction of the first two. From our results we can conclude, however, that the great majority of the cases will give a positive reaction with the first thirty-minute specimen after the injection and that therefore the majority of cases of early pregnancy will give a constant result in thirty minutes, thus eliminating one objection which has been raised—that of the time necessary to complete the examination.

With further work our knowledge of the limitations of the test has naturally advanced. In our first article we noted the fact that there was a great range of positive reactions; that some specimens of urine became dark almost immediately when the Nylander solution was added; that some were positive only with boil-

ing and some had to stand after boiling, and thought at that time that as more work was done and more experience gained we might be able to differentiate between the pregnancies, inflammatory conditions and tumors, by the character of the positive reaction. We now believe, however, that the difference in the positive reactions obtained in different individuals means that the reactions undergo individual variation to the Phloridzin and has no further significance. It has been shown that we not only may get positive reactions in some cases of tumors and pelvic inflammatory conditions, but that the test was distinctly positive in some cases of pneumonia with high fever, and pulmonary tuberculosis with high fever. Thus the phloridzin test is narrowed down to the condition for which it was originally intended —that of assisting in the diagnosis of early pregnancy.

A sufficient amount of work has been done at this writing to produce several theories as to why we obtain a positive reaction in the early pregnancy and a doubtful reaction in disturbed pregnancies, or incomplete abortions. It is known that there is an increased permeability of the renal epithelium for blood sugar during pregnancy and because of this, renal glycosuria can be produced with smaller doses of phloridzin than in non-pregnant women. A minimum irritation dose of two milligrams may give a positive reaction by the Nylander's reagent in a pregnancy in one-half to one hour—where, in the non-pregnant, a larger dose would be necessary. It is generally considered that an intact placental circulation is necessary to produce the reaction. However, there are a few cases reported where positive results were obtained in the presence of considerable bleeding. Also, there are two cases reported of criminal abortions with retained placenta, giving positive reactions.

Lewin, as a result of his work, concludes that in abortion it is not possible to decide by phloridzin whether the abortion is complete or incomplete. But it is possible to decide whether a hemorrhage with a closed os is due to an accomplished or an imminent abortion.

Since the first article appeared along this line, there has been much written and many discussions about the inaccuracy of the control test reaction. I have always contended, and still do, that this inaccuracy is due entirely to some difficulty in the technique. Several weeks ago, while talking with a confreer along this line, he stated that although he had done a great deal of experimental work on ingestion glycosuria, he had not followed up the use of the phloridzin test because of his results with the first five cases. To test it out, he gave five male medical students the instructions and told them to use it on themselves. They brought back a report of having obtained five positive reactions and the doctor decided the test was not reliable and had not tried it further. Up to that date, all my controls had been on healthy females and had been 100 per cent correct. I then tried it on some males and, to my surprise, found one positive reaction. Upon investigation, this particular Nylander's solution was found to be old and the specimen of urine, when tested with a fresh Nylander's solution, gave a negative reaction. We now make it a rule never to use a Nylander's solution over ten days old.

I am satisfied that the success of the test depends upon accuracy of technique; first, the thorough preparation of patient; second, accuracy of dosage of injection; and third, the use of fresh reagents. Regarding the first point, that of the thorough preparation of the patient, all agree that certain drugs must be avoided before the test. It will not be accurate on a patient who has taken antipyrine, salcylates, camphor, saccharin, chloral hydrate, chloroform and adrenal preparations within a few hours. Some think it necessary to have patients report early in the day so the test can be made on an empty stomach. With our first series we attempted to carry this out, but later found our results to be the same at any time of day and have therefore more recently been disregarding a full stomach. We have been able to prove in our work to our own satisfaction, at least, that accuracy of dosage is of greatest importance. The drug is supplied in ampoules which contain varying amounts from one to one and a half cubic centimeters. The basis of our test is to give a minimum irritation dose, which has been determined to be two milligrams, and as each cubic centimeter contains just two milligrams, the result will not be accurate or liable if the entire contents of the ampoule is given. I have already mentioned the importance of using a fresh reagent in making the urine test. The chemists with whom we advised did not agree as to the length of time Nylander's solution could be used. After some experimenting with different solutions we feel that one can depend on the reagent if it has not been prepared over ten days.

I have reviewed the literature regarding findings on controls and note that ten authors report 318 cases, and of these 94 per cent have given a negative reaction. Three of the authors, having cases ranging in number from 35 to 70 each, had 100 per cent negative reactions. Men having the smallest number to report, had the largest number of failures, and the average for the men having the most experience with the test was 97 per cent negative, or only 3 per cent failure. We have, with the five controls mentioned in the first article, 21 controls, and all gave a negative reaction, ex-

cepting the one above noted, which was readily negative with the use of a fresh reagent.

In addition to the 318 control cases mentioned, I have reviewed the results of 624 cases of suspected pregnancies coming within the three months period. Out of the 624 cases, 547, which were later proven to be pregnancies, gave a positive reaction. In other words, out of this comparatively large number the test was inaccurate in 12 per cent of the cases. I have attempted to be very liberal in these calculations, in that I have included the results of one man's work, (Koster), who said, out of 100 cases, 30 per cent were misleading. Some of this number undoubtedly should not be classed as failures.

As the number has become too large to give case reports, I will give only a summary of the 50 cases which we wish to report and which is exclusive of the 21 controls already mentioned. The ages of the patients ranged from 15 to 48 years, 20 were clinic and 30 were private cases. The laboratory work of the clinic patients was done by the hospital technician and the private cases was done by my office technician, with the exception of three cases, which will be referred to again. A number of the samples were run by both technicians for the purpose of checking the reagents. They were all within the three-month pregnant period. A light amber coloration appearing in the second or third samples after boiling and standing are considered negative reactions. The heavy black precipitate appearing at once with the first sample after injection, or in the second sample with boiling, is considered positive. I have never seen the black precipitate appear as late as the third sample. The further work has also more definitely proven the statement made in our first article that the earlier the pregnancy, the more rapid the positive reaction.

In our series of 50 cases we had 36 positive and 14 negative reactions. In all of the 50 we have since been able to prove or disprove the accuracy of the result of the test. I have found 44 of the reactions were correct, and 6 incorrect, making our percentage slightly over 13 per cent incorrect, as compared with 12 per cent of the larger number of cases reviewed in the literature.

Besides the 50 cases of early pregnancy reported in this series, we have tried the phloridzin test on 12 pelvic inflammatory and fibroid cases. With these there was no regularity of results. We have had three miscarriages—two giving negative reactions, and in both of which cases the membranes passed within a few hours. In the one positive reaction case, although the patient was flowing, the pregnancy was not passed for several days. Therefore, we can say that our results with these few miscarriage cases agree with the findings of other men which were noted above. Since starting this work we have not had a case of extrauterine pregnancy. One in which a tentative diagnosis of extrauterine pregnancy was made, and in which we found a positive phloridzin test, was a mistaken diagnosis, and is recorded as one of the failures.

I will not attempt in this paper to review or say anything further regarding the 44 cases in which the reaction was correct. It will be of interest, however, to hastily review the 6 cases in which the reaction was not correct.

CASE REPORTS

The first was a Miss O., age 27, admits the possibility of pregnancy. She had missed one period and was increasing in size; breasts were enlarging and bimanual examination was positive for early pregnancy. The report of the phloridzin test was positive, but this was one of the specimens not run by the two technicians. The examination was made by an interne, who was not familiar with the technique, and this may be a source of error. The patient was later found not to be pregnant.

Case no. 2. A Mrs. W., was a young married woman, with one child. One year previous had right tube and ovary removed, and had had a variety of pelvic symptoms since. She was four weeks over her period. Bimanual examination was negative for pregnancy. The Phloridzin test was negative. This examination was made the fifteenth of May. The first of June she aborted. The usual technique was carried out excepting that she had come in from the country without an appointment, and without the usual instructions as to preparation for the test.

Case no. 3. Mrs. B., was almost a borderline reaction, in that we obtained an amber color with sample number one and two; after boiling and cooling it showed a light black precipitate. This we called a positive, and it was later determined that she was not pregnant.

Case No. 4. Mrs. H., had slight bloody discharge each day since regular period. Albumin was present in urine, cervix soft, and fundus forward. Phloridzin test gave a fast heavy black precipitate. Since it has been determined she is not pregnant.

Case No. 5. Mrs. M., probable diagnosis of pregnancy was made from symptoms and pelvic examination, and later proven to be correct. Phloridzin test was negative with the Nylander solution about eight days old. This was checked with an absolutely fresh reagent and was positive but the case is classified among the six incorrect reactions because the series includes specimens reacting to the older Nylander.

Case No. 6. Mrs. H., a very thin, delicate individual, with a tubercular family history, one week over period. Test was positive. Later it was proven she was not pregnant. Although there was the possibility of tuberculosis in this case, it was not diagnosed and I have no record of her temperature having been taken when the test was made. This patient has moved away and a more definite history and diagnosis was impossible.

I am not attempting to prove anything by detailing the six cases, but it has been suggested to my mind in reviewing our incorrect results, that probably still more care in the technique, and further experience will reduce the percentage of inaccuracy. However, although a comparatively new study, it does

measure up well with our other laboratory tests as a diagnostic aid.

Certainly it is the most accurate and the easiest to perform of any laboratory aid in the diagnosis of early pregnancy which has been suggested so far. It has given the writer great satisfaction to have something more definite upon which to base a diagnosis than in the past, and we have added this test to our routine examination in determining the early pregnant state.

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THE SURGICAL TREATMENT OF ANGINA PECTORIS*

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Although the operation of resection of the cervical sympathetic ganglia has been advocated and attempted as a means of relief of many and various disease conditions, yet it was not until the year 1916 that an attempt was made to offer relief for that distressing clinical syndrome classified as angina pectoris by means of this procedure.

As early as 1899 Franck suggested left cervical sympathectomy as a rational means of relieving the pain associated with angina pectoris, yet it remained for Jonnesco to be the first to actually put this method into operation. His first report was made in 1920. Since then he has reported five other cases, to which Tuffeir, Coffey and Brown, V. Pleth, Bacon, Wenckebach, Halstead and Christopher, and Smith and McClure have added a total of nineteen cases.

Undoubtedly many other cases have been operated for the relief of this condition which, so far, have not been reported, but it is the author's desire to add one more because of the rather unusual surgical anomaly encountered during the operative procedure and the decided and complete relief furnished by what apparently was a very incomplete removal of the cervical sympathetic ganglion.

Thus Jonnesco advocates the removal of the entire cervical sympathetic, including the first thoracic ganglion, upon whichever side is the site of the most marked pain, with a secondary removal of the opposite side if relief is not obtained. In contradistinction to this Wenckebach, while referring to the cases operated upon by Eppinger, stated that resection of the left depressor nerve, which accompanies the vagus in its sheath to a rather high level, is sufficient to bring about the desired relief.

As this case has been reported from the medical standpoint by Doctors C. G. and A. F. Jennings, the chief reason for the present report is to call attention to the surgical anomalies encountered.

The patient, Mr. E. E. M., age 41, unmarried, stated that his father died at 79 from apoplexy. His mother died at 56 from mitral stenosis. One brother succumbed because of tuberculosis, and one from an accident. One sister died from pernicious anemia and one from a puerperal accident. Two brothers and two sisters are living and well.

His personal history showed the usual diseases of childhood. Typhoid fever in early adult life and an unoperated attack of appendicitis at 25 years of age. In 1918 he had pneumonia, while previously, in 1917, he had bronchial asthma after being partially suffocated during a fire in a munitions factory. These attacks were brought on by excitement or over-eating and were relieved by adrenalin. He thought that they had been much improved after removal of his tonsils and some infected teeth, and drainage of infected accessory nasal sinuses.

In September, 1923, he was referred to the writer by Dr. Jennings because of an acute empyema of the gall bladder accompanied by marked jaundice. Laparotomy was performed and the gall bladder opened and drained, many gall stones removed—the gall bladder contents being stones and pus. Palpation of the ducts at this time was negative, but the head of the pancreas was much hardened and distended.

Six weeks later, after drainage had ceased, he again became markedly jaundiced, the same being accompanied by chills and fever. A secondary laparotomy was performed and the ducts thoroughly explored for a possible overlooked stone. None could be found, but the pancreas again showed evidences of an acute infection. Drainage of the gall bladder was re-established and the patient made a rather rapid recovery with the exception that a very large post-operative hernia developed at the site of the incision.

The history of the patient's anginal attacks dated from 1918. It was discovered at this time that he had an arterial hypertension and he complained of severe attacks of pain in the precordial region and upper abdomen. It was thought that in all probability these attacks were related to the presence of gall stones, but the persistence of the anginal attacks, together with their increased severity and frequency, rendered this solution untenable.

Again, previously, in May, 1922, the patient suffered a right sided hemiplegia with motor and sensory paralysis from which he recovered after several months, the true angina attacks beginning a few months thereafter. These attacks began rather mildly, but increased in severity and frequency. The pain was precordial and extended down the

*Read before the Surgical Section, M. S. M. S., Annual Meeting, Mt. Clemens, September, 1924.

left arm and through to the back. The minor attacks were relieved by the administration of amyl nitrite, but the severe ones could be controlled only by the administration of from ½ to ¾ grain of morphia. Such attacks became more frequent and more severe until before operation they were of almost daily occurrence, and at times even much more frequent.

The patient's blood pressure ranged from 180 systolic and 110 diastolic to 220 systolic and 140 diastolic. The left ventricle was enlarged to percussion and to X-ray and the aortic arch was enlarged to X-ray. Laboratory tests of blood and spinal fluid were negative.

April 8th, 1924, under anesthetic of ethylene gas, resection of the left cervical sympathetic ganglia was performed. After the usual skin preparation, an incision seven inches in length was made along the posterior border of the sternocleidomastoid muscle. This muscle was reflected forward with the exception that the incision was carried slightly into the muscle substance at the superior end of the posterior margin so as to avoid injury to the exposed lesser occiptal nerve. The great auricular nerve was laid bare for a distance of two inches, without other injury to that structure, while the spinal accessory nerve was exposed for a distance of one and one-half inches. The great vessels of the neck were brought into view by retracting the sternocleidomastoid muscle forward and the vagus nerve was demonstrated running in the sheath of the great vessels.

Coursing along the anterior surface of the longus capitis muscle a nerve was encountered whose position accorded with that of the cervical sympathetic. However, upon tracing upward and downward for a distance of five inches no ganglion or branching could be discovered. Nevertheless, when this nerve was injured by pinching with forceps the pulse rate immediately increased to a rate of 120 per minute. It was, therefore, thought that we must either have a sympathetic nerve, which did not possess the characteristic text-book description, or that the depressor nerve had been encountered after an extremely low vagus separation. Therefore a piece about three inches in length was excised from this nerve. The wound was closed by means of cat-gut sutures and interrupted silk-worm gut for the skin, no drainage being used. The total operative time was thirty minutes.

The above method of approach is that advocated by Jonnesco and the steps involved have been reported somewhat in detail because of the fact that it was the writer's belief that an approach along the anterior margin of the sternocleidomastoid muscle is possibly preferable to the method given above. An incision anterior to this muscle was advocated by Mayo at the time that cervical sympathectomy was being performed for purposes of relieving severe exophthalmos in toxic goitre—and it has been my experience that the few cases that came under my observation at that time did not complain of the post-operative discomfort that could be directly attributed to the method of approach along the posterior border of the sternocleidomastoid muscle.

For the first few days the patient complained of numbness in the shoulder and behind the ear, after which the pain in these areas became quite excruciating. This lasted over a period of about four weeks, after which sensation in these localities returned to normal. Evidently the stretching and exposure of the greater auricular and the accessory nerves was responsible for the discomfort during this period and the approach along the anterior border of the muscle would minimize the handling of these tissues.

Upon three occasions, during the first two post-operative weeks, the patient complained of short attacks having all the symptoms of angina except the pain. Since then there has been no recurrence of such phenomena.

Four weeks after cervical sympathectomy the large abdominal hernia was closed by operation. The anesthetic used was ethylene gas and oxygen, and the time involved forty minutes. No untoward effect was observed whatsoever, either symptomatically or from blood pressure or electrocardiographic readings.

Five months have now elapsed since the operation was performed and the patient is attending to his regular duties and even indulging in the rather arduous sport of motor boat racing without any recurrent trouble whatsoever.

That the nerve encountered in the case described above was in all probability an unusual anomaly of the cervical sympathetic was demonstrated by the rapid occurrence of the characteristic enophthalmos shortly after operation.

It is not the purpose of this report to enter into a discussion of the value of this operation as a curative factor in angina pectoris. Suffice it to state that it relieves the pain and frequently renders the patient capable of attending to ordinary duties during a stage of the disease in which he otherwise would be a hopeless cripple, and, therefore, it has a decided value in the control of the anginal attacks.

The chief points which I wish to emphasize through the above presentation are that an approach along the anterior border of the sternocleidomastoid is preferable to that along the posterior margin, and also that possibly as complete a resection of the cervical sympathetic ganglion as advocated by Jonnesco is not essential in all cases.

In the case cited above no definite ganglion was encountered and yet all afferent impulses from the pathological field were evidently severed by a simple resection of three inches of the nerve. If such proves to be the case, the formidability of the operation is greatly reduced.

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EXPERIMENTAL STUDIES ON THE NATURE OF PLACENTAL EXTRACTS

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This work was undertaken with the view of clearing up some of the disputed points and harmonizing the many apparently contradictory facts that have been brought out in connection with the so-called "placental theory" of eclampsia.

That eclampsia is essentially a toxaemia is now generally accepted by all observers, but whether the toxin or toxins concerned are specific products of foetal elements, or are merely the usual substances involved as a result of disturbed metabolism, is a question that divides the great theorists into two schools.

The former, or placental theory, so significantly pointed out by many clinical facts, has been supported by numerous very interesting experimental studies and was the prevailing view until the publication of the work of Lichtenstein (1909), a series of experiments in which he proved that the toxic effects of placental extract found by previous workers were of a mechanical nature, inasmuch as they could be produced equally as well by inorganic indifferent materials such as argilla, and that properly filtered extracts or emulsions could be injected with impunity. With this, called by Whitridge Williams "the most serious blow" to the placental theory, the general interest has been divided into the latter interpretation and eclampsia has been regarded as manifestation of some form of disturbed metabolism.

Notwithstanding the fact that numerous investigators have since discredited the general conclusion of Lichtenstein and placed the placental theory on a firmer basis than before, little attention has been paid to them as is evidenced by the statement of Williams in the latest edition of this textbook of obstetrics that "subsequent writers have failed to meet his (Lichtenstein's) criticism" (p. 682, '17). And it is in consideration of this situation, that of a downfallen theory struggling to regain its former supremacy, that this investigation, which involves a repetition of some of the later experiments, was undertaken.

The chief experimental contributions to the "placental theory" of eclampsia may be very briefly stated as follows:

(1) Veit (1904-1905) injected the expressed juice of placentae into the peritoneal cavities of rabbits and found that it produced albuminuria, hemiglobinonemia, nephritis, and, in some cases death with symptoms simulating those of eclampsia. He also found that the serum of such rabbits had acquired the power of dissolving the syncytial cells, i. e., it developed a "syncytiolysih." On the strength of this he conceived eclampsia to be due to an excess of syncytium carried into the maternal circulation (Veit's "deportation" theory) which cannot be neutralized by the available syncytiolysin in the mother's serum.

(2) Ascoli (1902) injected rabbits with guinea-pig placenta and thus produced a specific syncytiolysin. He then injected this immune rabbit serum suddenly into pregnant guinea pigs and thus caused death with symptoms signifying those of eclampsia. Injected subcutaneously the animals lived, but developed albuminuria. He conceived the "toxin" of eclampsia to be "syncytiolysin."

(3) Weichardt (1902) injected rabbits with human placenta and found that the rabbit serum developed a specific lysin. Such a serum plus human placenta injected without filtering, subcutaneously, into animals caused death with symptoms similar to those of eclampsia, together with necrosis of the liver, degeneration of the kidneys and multiple thrombosis. He conceived, with Veit, eclampsia to be due to unneutralized syncytiotoxin.

(4) Later Weichardt and Piltz (1906) demonstrated in placental extract the presence of two distinct poisons, one that accelerates the coagulation of blood and one that paralyzes the respiratory centre.

(5) After this Freund (1907) supported fully the conclusions of Weichardt and Piltz in work which he reported at the twelfth Gynaecological Congress in Dresden in 1907. Freund also found that the extracts of all glandular organs (spleen, pancreas, liver, kidney) possessed a poison (plasma gift) similar to that found in placenta. Extracts from non-glandular organs, such as the brain and muscles, gave negative results. He thus conceived the toxin to be essentially a gland product and regarded the placenta as a kind of gland. Freund furthermore found that the toxin of human placenta was neutralized by fresh human blood serum.

(6) In 1908 Lichtenstein repeated Weichardt's, Piltz's and Freund's work with results which culminated in the serious blow to the placental theory above mentioned. He could cause acute death with thrombosis if he used unfiltered placental extracts and injected intravenously, but he found intravenous injections ineffective if the extracts were filtered. He then passed the placental pulp through graded sieves (up to No. 6) and found it effective, but pulp passed through sieve No. 6 (a finer one) could be injected without impunity. He also injected suspensions of fine clay "argilla" prepared by same method and got parallel results. Thus he concluded that the death of the animals was caused by blocking of the capillaries and small vessels of the lungs, and in support of his conclusion demonstrated embolic masses of syncytium in the pulmonary arterioles and capillaries.

Freund also got negative results from filtered extracts, but believed the reason was that the placental toxin was inseparable by filteration from the protein particles, a view which is thoroughly disproved by Lichtenstein's sieve work, both with placenta and with argilla.

(7) Kraus, Lowenstein and Volk (1911) injected extracts of guinea pig lung intravenously into guinea pigs, with the production of acute death. If these extracts were filtered through a Berkfield filter or heated to 60° C. they could be injected intravenously without outward effects.

(8) Schickile (1911) expressed juice from the ovary, corpus lutem, and the uterus by means of a Buchner press under a pressure of 400-500 atmospheres. The expressed juice from these organs,

when injected intravenously, caused acute death of the animal. He further demonstrated both in vitro and in vive that they caused a marked inhibition of coagulation of blood. The juice from other organs, however, namely, placenta, liver, kidney and muscle, caused a marked acceleration.

Extracts in normal salt solution of the same organs were without effect when injected intravenously.

(9) Following the work of Kraus, Lowenstein and Volk, Dold (1911) began to get results with centrifuged and filtered watery extracts which differed so markedly from those of previous workers that a detailed statement of his technique is justified. Fresh organs were cut up and ground in a mortar with sterile sea sand, to which was added drop by drop during the grinding, sterile normal saline solution up to 10-25-c.cm. The pulp was filtered through filtered paper or cloth and centrifuged. The supernatent fluid which was free from all gross particles was then injected intravenously into rabbits and guinea pigs. The organs used were normal and tuberculous lungs and spleen. He did not use the placenta. In later experiments he found the use of the mortar unnecessary; leaving the cut pieces of tissues in salt solution at room temperature for two hours being sufficient. This centrifuged saline extract, when injected intravenously in doses 2-4 c.c. into rabbits and guinea pigs caused acute death. This "organ gift" was found to be neutralized by any, but more effectively by homologous blood serum. It was also found to be destroyed by a few days standing at room temperature, by filtration through a Berfield filter, by heating ½ to 2 hours at 60° C. and by being mixed with kaolin (the poison being physically absorbed). These together with the additional facts that the poison is much more potent for an homologous than for a heterogenous animal, led Dold to the conclusion that it is not of a simple chemical nature. The power of a serum to neutralize the "organ gift" was found to be destroyed by ordinary filtration. It was found also that animals could not be immunized against the poison. Dold emphasizes as one of the outstanding effects of the poison, the marked inhibition of blood coagulation.

Following Dold a number of experiments were made with a view of determining the nature and properties of this toxin or "organ gift," chief among which were those of Dold, Ogota (1912), Ascoli and Isar (1912), Isar and Patane (1912), Ishikawa (1913), Aronson (1913), Dold and Kodama (1913). The results obtained were divergent.

(10) In 1914 Young prepared emulsions and autolytic extracts of placenta by several methods, one of the most successful of which was the following: The fresh placenta, freely washed in saline, is cut into small pieces (½ in. sq.) which are spread out on sterile dishes and placed in the incubator for 12 to 16 hours. The dried pieces are then rubbed in a mortar into a fine powder which is made still finer by passing through fine meshed sieve. This powder is suspended in normal saline solution, forming an emulsion which can be injected into animals. He made all of his injections subcutaneously and into guinea pigs, using 0.4-0.5 gms. of the powder to 6-8 c.c. of saline solution for each injection. After three or four injections, twice daily, the animals usually died in convulsions with numerous and prolonged seizures. Necropsic examination revealed typical eclaptic liver necrosis and degeneration of the kidneys.

(11) Obata, in 1919, published a series of experiments on the effect of normal saline extracts of placenta when injected intravenously into Japanese dancing mice and rabbits. He took placental cotyledons, freed from decidua and as much as possible from blood, then ground them in a mortar. This pulp is mixed with 0.85 per cent salt solution in proportion of 1-3 parts by weight. The mixture after being stirred, is allowed to stand at room temperature for ½ hour, after which it is filtered and centrifuged. The supernatent fluid is injected intravenously. In the case of the mice the effects were immediate and are reported as violent dyspnoea, clonic convulsions, coma and finally death within 2-3 minutes. In the case of the rabbits, the effects, though in nature the same, were usually prolonged, death not supervening for hours or sometimes days. Obata claims also to have found at necropsy lesions in the liver and kidneys similar to those usually found in eclampsia. Lethal doses inhibited to the same extent coagulation of the blood, but small doses caused an acceleration of coagulation. He also found that any normal human serum possesses a practically uniform power of neutralizing the poisonous property of placental extract in proportion of 0.2-0.3 c.c. of serum to 1 c.c. of extract, but that this neutralizing power is considerably less in the serum of eclamptic women during the attack.

In the present investigation the experiments of Obata, of Young and of Lichtenstein were repeated. The technic of the respective authors being in each followed exactly. In addition, a parallel series of experiments were carried on with extracts from some organs used in the above-mentioned series obtained by means of the Buchner press. The method of using the Buchner press was as follows:

1. Placenta is washed thoroughly with running water for twenty minutes to get as much of the excess blood out as possible. During this process the placenta is held in the hand and squeezed, as this will aid much in the way of expressing the blood.

2. After the placenta has been thoroughly washed, the membranes are removed as well as possible and only the cotyledon is to be used, preferably that portion most deficient in large villi.

3. The portion to be used is weighed so as to be able to establish a somewhat definite quality. We use 200 grams of the placental pulp each time.

4. After weighing, the placental pulp is put through a meat grinder which will grind and macerate it into very fine particles. This is again washed until a pink fluid is exuded on pressure. The substance may now be placed into a cider press and the remainder of bloody fluid expressed.

5. The pulp, now thoroughly ground and washed, is put into a large mortar and ground with acid-washed sea sand. This grinding should take at least one-half hour.

6. This pulp is now placed in and wrapped in a linen napkin, then placed in the Buchner press. Pressure is applied and fluid which is expressed up to 200 atmospheric pounds is discarded as it contains a large amount of blood and sand. That portion of fluid which comes between 200 and 300 atmospheric pounds pressure is the extract and only about 8 c.c. are normally obtained. This is a clear pink, transparent fluid. The Buchner operation should take at least 45 minutes, ten minutes up to 200 and 35 minutes from 200 to 300.

7. The fluid is centrifuged so as to make sure there are no particles of sand in suspension. The supernatent fluid is used for injection.

I. OBATA'S EXPERIMENTS

As Japanese dancing mice were not obtainable, ordinary white mice and rabbits

were used. The technic which has already been described was followed to the letter. The placenta were all fresh (1 to 6 hours after delivery). The results are given in Table I. As is shown, they were all, without exception, negative. Obata's lethal dose for mice was 0.25-0. 16 c.c. In our experiments as much as ½ c.c. to mice, 3 c.c. to rabbits, and 6 c.c. to dogs were given intravenously without visible effects, excepting acceleration of respiration.

Extracts from some placentae made by the Buchner press, on the other hand, were all positive as shown in Table II. An average dose of 1 c.c. injected intravenously into rabbits caused opisthotonos and death in 1 to 3 minutes. The pupils were at first markedly dilated and later contracted. The respiration was immediately paralized, but the heart kept on beating, even for some time after excision. Sometimes it showed auricular fibrillation; at other times two-to-one rhythm, and occasionally a normal heart. At necropsy, which was done in every case immediately, the portal blood was found clotted. the blood in the heart chambers, however, was usually fluid.

II. YOUNG'S EXPERIMENTS

Young made use of three methods of preparing his injected material: (1) the Buch-

TABLE I.

Experiment No.	Extract	Amount in c.c. Injected Intravenously	Animal	Result and No. Animal
1.	Saline extract of placenta by Obata's method	1 c.c.	Rabbit	1*
2.	Same as No. 1, but larger doses	2 c.c. 4 c.c.	Rabbit Dog	3* 1
3.	Fresh Placenta Saline	1 c.c. 6 c.c.	Rabbit Dog	3 1
4.	Fresh Placenta Saline	1 c.c. 2 c.c.	Rabbit Rabbit	2* 2
5.	Fresh Placenta Saline	1 c.c. ½ c.c.	Rabbit Mouse	1* 3
6.	Fresh Placenta Saline	½ c.c. ½ c.c.	Mouse Rabbit	2 2
7.	Fresh Placenta Saline	2 c.c.	Rabbit	3
8.	Fresh Placenta Saline, Puerperal Infection	½ c.c. 2 c.c.	Mouse Rabbit	2 2
9.	Same as No. 8	1 c.c.	Rabbit	2*
10.	Fresh Placenta Saline, Eclamptic	1 c.c. ½ c.c.	Rabbit Mouse	1 2
11.	Same as No. 10	2 c.c.	Rabbit	1*
12.	Fresh Placenta Saline, Eclamptic	1 c.c. ½ c.c.	Rabbit Mouse	1 3
13.	Same as No. 12	3 c.c.	Rabbit	2

*Rabbits used again for further injection.

TABLE II.

Experiment No.	Extract	Amount in c.c. Injected Intravenously	Animal	Result and No. Animal
14.	Saline Extraction per Obata	2 c.c.	Rabbit	2
15.	Same as No. 14, but Buchner press used	1 c.c.	Rabbit	1
16.	Same as No. 14. Buchner press	½ c.c.	Rabbit	1
17.	Saline Extract—Placenta*	2 c.c.	Rabbit	1
18.	Same organ as in No. 17, but Buchner press used	½ c.c.	Rabbit	1*
19.	Same as No. 18	1 c.c.	Rabbit	1*
20.	Placenta—saline—per Obata	2 c.c.	Rabbit	1
21.	Same organ as in No. 20, but with Buchner press	1 c.c.	Rabbit	1
22.	Same as No. 20	½ c.c.	Rabbit	1
23.	Placenta—Buchner press	1 c.c.	Rabbit	1*
24.	Same as No. 23	3 c.c.	Rabbit	1*
25.	Placenta—Buchner press	½ c.c.	Rabbit	1
26.	Same as No. 25, but allowed to stand 48 hours at room temp.	½ c.c.	Rabbit	1
27.	Placenta—Buchner press	1 c.c.	Rabbit	1
28.	Same as No. 27	2 c.c.	Rabbit	1
29.	Placenta—Buchner press	1 c.c.	Rabbit	1
30.	Same as No. 29	¾ c.c.	Rabbit	1
31.	Same as No. 29	½ c.c.	Rabbit	1

*Placenta over 48 hours old.

TABLE III.

Experiment No.	Extract	Amount in c.c. Injected Intravenously	Animal	Result and No. Animal
32.	Placenta—Saline suspension of pulp as Lichtenstein directs—Sieve 5	2 c.c.	Rabbit	3
33.	Same pulp as in No. 32, Passed through Sieve 6	2 c.c.	Rabbit	3*
34.	Same pulp as in No. 32, but filtered	1½ c.c.	Rabbit	2
35.	Extract Placenta saline suspension as per Lichtenstein Sieve 5	2 c.c.	Rabbit	1
36.	Same as in No. 6, except through Sieve 6	2 c.c.	Rabbit	2
37.	Same pulp as in No. 35—filtered	1 c.c.	Rabbit	1
38.	Same pulp as in No. 35, but put through Buchner press	1 c.c.	Rabbit	1
39.	Saline Placenta—through Sieve 6	2 c.c.	Rabbit	1**
40.	Same pulp as in No. 39—Sieve 5	2 c.c.	Rabbit	1
41.	Same pulp filtered	1 c.c.	Rabbit	1
42.	Same as in No. 39, but put through Buchner press	1 c.c.	Rabbit	1

*Used in No. 34.
**Same rabbit used again.

TABLE IV.

Experiment No.	Extract	Amount in c.c. Injected Subcutaneously	Animal	Result and No. Animal
43.	Placenta—Dried Placental powder in saline suspension. (Young).	*8 c.c.	Guinea Pig	1
44.	Same as No. 43	*8 c.c.	Guinea Pig	1
45.	Same as No. 43	*8 c.c.	Guinea Pig	1
		Intravenously		
46.	Placenta powder suspended in saline passed through Sieve 6 (wet)	2 c.c.	Rabbit	2**
47.	Same as No. 46, but passed through Sieve 6 (dry)	2 c.c.	Rabbit	2**
48.	Same as No. 46, but passed through Sieve 4	2 c.c.	Rabbit	1
49.	Same as No. 46, but filtered	2 c.c.	Rabbit	1
50.	Same pulp passed through Buchner press	1 c.c.	Rabbit	1

*8 c.c. injected three different times.
**There seems to be some difference between the dry and wet. The dry through Sieve 6 will expand when saline is added, but when wet and then passed through Sieve 6 the results are negative.

TABLE V.

Experiment No.	Extract	Fluid Added	Time Incubated	Amount Injected Intravenously	Result No. Animal
51.	Placenta—Buchner press extract			1 c.c.	1
52.	Same as No. 51—Buchner press extract, 1 c.c.		2 hrs. 37 min.	1 c.c.	1
53.	Same as No. 51	Human Serum, 2 c.c.	2 hrs. 37 min.	3 c.c.	1
54.	Same as No. 51, 1 c.c.	Bloody fluid from Placenta, 2 c.c.	2 hrs. 37 min.	3 c.c.	1
55.	Same as No. 51	Saline, 2 c.c.	2 hrs. 37 min.	3 c.c.	1
56.	Same as No. 51, but with filtered human serum	Serum filtered 2 hrs.	2 hrs. 37 min.	3 c.c.	2
57.	Fresh Placenta—Buchner press			1 c.c.	1
58.	Same as No. 57, but incubated		2 hrs. 37 min.	1 c.c.	2
59.	Same as No. 57	Human serum, 2 c.c.	2 hrs. 37 min.	2 c.c.	2
60.	Same as No. 57	Bloody fluid from Placenta, 2 c.c.	2 hrs. 37 min.	3 c.c.	1
61.	Same as No. 57	Saline, 2 c.c.	2 hrs. 37 min.	3 c.c.	1
62.	Same as No. 57, but with filtered serum	Serum	2 hrs. 37 min.	3 c.c.	2

ner press, (2) saline extract of dried and powdered placenta and (3) by extracting in glycerine.

On account of shortness of time the third method was not tried. The results of methods (1) and (2) are given in Table IV. The guinea pigs all died after two or three injections, usually in the course of 24 to 36 hours. Symptoms resembling those of convulsions were not noticed. The animals died a slow death, showing stupor but not coma. The liver and kidneys showed the ordinary diffuse granular degeneration so common in a great variety of diseases, but

no lesions in any manner resembling those of eclampsia. Intravenous injections into rabbits gave positive results, that is, opisthotonos and death with respiratory paralysis in one to three minutes, when the powder was passed through a coarse meshed sieve (No. 4), but negative results when it was passed through a fine sieve (No. 6). But if the saline suspensions were passed through sieve No. 6, the results would be negative, or when the suspensions were filtered. The deaths and necropsy findings were exactly the same as those in the animals killed by the Buchner press extract.

III. LICHTENSTEIN'S EXPERIMENTS

The results of the repetition of these experiments are given in Table III. Lichtenstein's results from intravenous injections of the saline extracts are confirmed in every respect—that is, suspensions of pulp passed through the coarse meshed sieves up to No. 6 gave positive results, while those passed through a finer sieve (No. 6), or filtered extract, gave negative results. The juice of the same placenta procured by the use of the Buchner press, however, filtered and centrifuged, invariably caused death in 1 to 3 minutes.

The clinical and anatomical phenomena associated with the death of these animals were the same whether the death was caused by Buchner press juice or by unfiltered saline extract. These have already been described and are the same as those noted by Weichardt, Freund and Lichtenstein. Lichtenstein believed that death was caused by mechanical blocking of the pulmonary arterioles and capillaries by gross particles of placental pulp. The fact that the supernatent fluid from the centrifuged Buchner juice is certainly free from all gross particles, causes death of an exactly similar type to that following injections of unfiltered saline extract, is a strong argument against this interpretation. In the animals killed by the unfiltered saline extract, emboli or syncytial masses were found in the lung capillaries, but there was little evidence of disturbance in the circulation in the surrounding tissues. In view of these facts, it seems practically certain that death is not the result of pulmonary embolism or thrombosis. Table V shows the effect of human serum added to and incubated with the poisonous extract.

The marked divergence of results obtained by different authors with the use of filtered saline extracts must, for the present, be left unexplained. With Weichardt, Freund, Schickele, Lichtenstein and others, as in these experiments, the results were negative, while those of Dold, Obata and others, working by apparently the same methods, were positive. Owing to the fact that the blood serum neutralizes the poison, it was thought that the difference might be explained by the varying degrees of success in freeing the placental tissue from blood in making the extract. The fact that Dold obtained his organs after bleeding the animals to death, points to this view.

CONCLUSION

The present investigation has definitely proved that placental extract contains one or more toxic substances which, when injected intravenously into animals, causes quick death with convulsions, respiratory paralysis and rapid coagulation of the blood, phenomena closely resembling those found in eclampsia.

Repeated subcutaneous injections of large doses cause death in 12 to 36 hours with a train of rather indefinite symptoms. This series of experiments, however, has not been sufficiently developed to justify positive conclusions.

The exact nature of the toxin or toxins has not been determined. That it does not act mechanically, as claimed by Lichtenstein and recently currently accepted, has been demonstrated by positive results from injection of the perfectly clear supernatent fluid of centrifuged Buchner press juice. That it is not of a simple chemical nature is proved by the fact that it is neutralized by homologous serum. Furthermore, it has been shown that the neutralizing power of the serum is not of a "complement-binding" nature by the demonstration that filtration of the serum destroys its neutralizing power.

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PUBLIC HEALTH ACTIVITIES

Edited By

MICHIGAN DEPARTMENT OF HEALTH

FOURTH ANNUAL CONFERENCE OF HEALTH OFFICERS AND PUBLIC HEALTH NURSES

The fourth Annual Conference of health Officers and Public Health Nurses, held in Lansing under the auspices of the Michigan Public Health Association and the Michigan Department of Health, was attended by 227 health officers, public health nurses, sanitary engineers, and laboratory workers.

The first morning's session was devoted to registration and informal discussions. In groups of eight or ten, the guests were conducted through the offices and laboratories of the Michigan Department of Health, listening to brief explanations of the work of the eight bureaus.

Regular sessions began Wednesday afternoon with the presentation of four papers by members of the Department staff. Dr. Robert B. Harkness of the State Advisory Council of Health opened the formal meetings, and presided during the afternoon.

"The First Right of Childhood," was discussed by Dr. Lillian R. Smith, of the Bureau of Child Hygiene and Public Health Nursing. Dr. Smith emphasized the necessity of prenatal care of the mother as a first step in child hygiene. Touching briefly on the midwife problem, Dr. Smith urged better education of the midwives and more careful supervision of their work, until some substitute is worked out for the districts far from a doctor.

John M. Hepler of the Bureau of Engineering, talked on "Safeguarding the Playground of a Nation." The history of resort sanitation in Michigan was briefly outlined, preceding a discussion of the various types of resorts and their special problems. Mr. Hepler emphasized the difficulty of supervision with the present system of local health administration. Some local authority must be responsible for the sanitation of local resorts, including the supervision of water supplies, sewage and garbage disposal facilities, and the abatement of nuisances. In resort and tourist camp sanitation, eternal vigilance is the price of success.

"Hardwater: an Unnecessary Evil," was the subject of a paper by E. F. Eldridge of the Bureau of Laboratories. Mr. Eldridge stated that the waters of the Upper Peninsula and the upper part of the Lower Peninsula are softer than those in the southern, more densely populated sections of the state where the hardness may exceed 300 parts per million. Hardness of Michigan's waters is due to calcium and magnesium in solution, loose combinations of these metals with carbonic acid. The remedy consists in the addition of lime which causes the precipitation of insoluble calcium carbonate with the liberation of carbon dioxide. Municipal softening plants operate on this principle. In a city the size of Lansing, the annual loss from hard water because of the necessarily excessive use of soap is computed as $134,000. An additional $144,000 is spent each year for soft water plumbing and the depreciation on private softening equipment.

Juliet O. Bell of the Bureau of Education discussed "Health Education of Children," illustrating her talk with posters and devices from one of the schools of Kalamazoo County. Miss Bell explained the county health education demonstration being carried on in Kalamazoo County, and advocated the adoption of the same type of measures in rural schools all over Michigan.

CONFERENCE SESSIONS ON THURSDAY, DECEMBER 11

The morning session on Thursday opened at 9:30 with Dr. C. A. Neafie, president of the Michigan Public Health Association, presiding.

The first paper on the program was given by Dr. Bernard B. Bernbaum, Herman Keifer Hospital, Detroit, "A Study of Smallpox Cases at Herman Keifer Hospital." Dr. Bernbaum reviewed the cases and clinical findings, and discussed the types of erruptions and complications. He also took up the distribution of cases according to age, sex and color, and according to their nativity. Dr. Bernbaum emphasized the fact that practically 100 per cent of the cases had never been vaccinated.

Puerperal septicemia in relation to public health was discussed by Dr. Florence L. Cc-Kay, director Division of Maternity, Infancy, and Child Hygiene, New York State Department of Health. Dr. McKay brought out the fact that 30 per cent of all puerperal deaths in New York State were due to puerperal sepsis. In communities with a population of 10,000 or more, this rate was higher than in rural districts. Each year showed a distinct seasonal variation in deaths from puerperal sepsis, the peak occurring in September and the smallest number in March. The number of deaths increased with the age of the mother, the

largest percentage being among the age group from 45 to 49 years.

Obstetric operations, that is, version, Caesarian section or the use of forceps had been performed in 25.7 per cent of the cases. This finding, Dr. McKay asserted, suggests that septicemia might be obviated by less operative interference during labor. Self induced or criminal abortion caused 20 per cent of the puerperal septicemia deaths. In one-third of all the septic maternal deaths, the physician reported that the patient had been neglected or had been given poor attention at some time previous to infection.

For reducing the puerperal septicemia death rate the following measures were recommended: supervision of midwives; improvement in the teaching of obstetrics in medical schools; education of the public to prenatal supervision and better care at delivery; education of the public concerning the dangers of abortion, and suppression of the criminal abortionist; adequate hospital facilities and more obstetrical free beds. In New York state sterile obstetrical packages are being distributed in rural districts by the State Health Department.

Dr. Harry L. Rockwood, Commissioner of Health, Cleveland, Ohio, presented "Theory Versus Practice in Public Health Work." Using smallpox control as an example, Dr. Rockwood distinguished between theory and practice in public health administration. "In the face of the fact that for 130 years an effectual means of preventing smallpox has been available, we as public health officials are repeatedly called upon to cope with this disease." The need of today is not for more theories, but a more practical application of those already known. "Let us make it clear that smallpox is prevented by vaccination when the entire community rolls up its sleeves, and that diphtheria deaths are needless when the baby of six months in every family will have received toxin-antitoxin." Dr. Rockwood closed by emphasizing the necessity for advertising not only the advantages of disease prevention, but also the cost.

A forum discussion of county public health nursing led by Miss Elizabeth Robinson, R. N., Lansing, ended the morning program.

The afternoon session was presided over by Dr. Guy L. Kiefer, president State Advisory Council of Health.

Dr. Kiefer first introduced Dr. S. J. Crumbine, director of public health relations, American Child Health Association, who talked on "The Relationship Between Voluntary and Official Health Agencies." Voluntary health agencies were described as pathfinders blazing the trail in new and unexplored fields; they are or should be pinch hitters in emergencies. The activities of voluntary agencies should include education, demonstration, and transformation. Educational efforts in public health should first attract attention, then secure an interest, and ultimately create a desire. The National Health Council is a recently completed affiliation of ten voluntary health agencies, with four other organizations as conference or associate members. Its object is the coordination of the activities of the members of the Council and such other activities for the betterment of health as may be determined.

A new plan of evaluating municipal health service is sponsored by the Council, and promises for the first time to give the health officer a concrete method of measuring his work.

"When official and non-official groups can think and plan in terms of public service rather than personal interest, then we will discover that our mutual intereses run along parallel lines, and that team work as expressed in sympathetic co-operation will carry us further in the right direction than a dog-in-the-manger policy that heretofore has characterized our efforts."

During the forum on communicable disease control, Dr. C. A. Neafie, health officer, Pontiac, gave an interesting resume of the scarlet fever control measures he has instituted. Scarlet fever cases in Pontiac are now released from quarantine on a basis of hemolytic streptococcus findings in throat cultures. This plan was begun in March, 1924, and in September, 1924, a new set of records was devised, and in addition to release cultures, swabs were taken when the case was reported and planted both on Loeffler's medium and blood agar plates. Hemolytic streptococci have been found in 100 per cent of the 72 cases where a series of two or more cultures have been taken from the throat, nasopharynx and nostrils. In 80.5 per cent of cases hemolytic streptococci were found on the first specimen examined. In 69 uncomplicated cases where two or more cultures negative for hemolytic streptococci were required for release, the average duration of quarantine was 37 days. In 25 cases complicated with diphtheria, the average duration of quarantine was 54.5 days. In 12 cases with otitis media of one or both ears or adenitis as complications, the quarantine period varied from 48 to 93 days.

Cultures should be obtained from the nasopharynx and the nostrils, besides the pharpnx. Three successive negative hemolytic streptococcus cultures are now required for

the release of scarlet fever cases instead of two. The change to the larger number was occasioned by the occurrence of three secondary cases following primary ones which had been released after two negative cultures.

The Municipal Visiting Nursing Forum had as its chairman, Emilie G. Sargent, of Detroit, and as its first speaker. Ellis J. Walker of Kalamazoo. Lizabel McKenzie of Flint, discussed her work with midwives and her classes of foreign mothers.

The only evening session of the Conference was held Thursday, with Dr. Leslie L. Lumsden of the United States Public Health Service as speaker. Dr. Lumsden had as his topic, "The Public Health Business" and he touched briefly on the opportunities and the duties of public health workers, with Michigan conditions particularly in mind. Dr. Lumsden urged the adoption of some form of full time county health service as the prerequisite of effective work.

SCARLET FEVER DISCUSSED AT FRIDAY SESSION

The Friday morning session was opened by Dr. C. C. Slemons of the State Advisory Council of Health as presiding officer.

Dr. Slemons first introduced Dr. Robert Lockhart, district health commissioner of Cuyahoga County, Ohio. Dr. Lockhart spoke on "Full Time Health Service in the General District of Cuyahoga County," describing the organization of the work under the Hughes-Griswold Law. Cuyahoga County is the county in which Cleveland is located, but the county unit does not include Cleveland. Dr. Lockhart discussed some of the difficulties met in the beginning of the work four years ago, one of which was the lack of any standard of comparison. The closing of the five-year period will give a valuable measuring rod for future work.

Dr. Leslie L. Lumsden of the United States Public Health Service was the second speaker on the program, discussing "Public Health in the Rural Community." Dr. Lumsden spoke at some length on the cost of a county unit. He said that $10,000 was the minimum budget for a county of 20,000 people, making the per capita cost 50 cents. The danger of using the term "per capita cost" among people who did not understand it was emphasized. This budget would provide for a full time health officer, a sanitary officer, a public health nurse and a part time clerk.

"A Discussion of Some Aspects of Scarlet Fever" was presented by Benjamin White, Ph. D., Director, Division of Biologic Laboratories, Massachusetts Department of Health. Dr. White urged caution in the adopting of the Dick test, stating that the biological background has not yet been conclusively proved. The etiology of scarlet fever, testing for susceptibility, and methods of immunizing are still in the experimental stage. While there is promise of a new era in scarlet fever control in the work now being done, the methods are as yet too experimental for adoption and routine use by health officers and public health nurses.

The afternoon session was called to order by Dr. Harkness of the Advisory Council of Health, in the absence of Dr. John Sundwall who was called away unexpectedly.

The first paper was read by Mr. Abel Wolman, Chief Engineer, Maryland Department of Health. His title was "Man's Relation to His Environment." Mr. Wolman said that at one time the emphasis in public health control has been placed on environment and at another on heredity. As in the cold analysis of all wars, we now find both factions partially right, and that all banners are partially useful. The origin of environmental problems is man's desire for food, shelter, creative activity, and defense.

The importance of food as an environmental factor has only recently been recognized, but this and other discoveries by no means lessen the importance of the fact that safe water and milk, and the disposal of human wastes still have vast implications in the prevention of disease. Civilization has many debits to its ledger, of which bad housing is an excellent example. Modern families in cities are subjected to a process of warehousing and herding together without regard for their environmental hygiene. The factors of air motion, temperature, and relative humidity have long displaced excessive carbon dioxide as causes of discomfort in medical knowledge, if not yet in state laws and regulations.

In the past environmental control has been limited to its negative phase—the elimination of "accidents" such as typhoid fever, malaria, and cholera. The positive effects of such things as housing, ventilation, and heating are yet to be controlled. "It is conceivable that the scientist may continue to attack disease through two media, environmental and individual, with more fruit to his program than by abandoning each one in turn when new standard bearers appear in succeeding years. The public, volatile in mind and in action, delights in changing flags. It is the scientist who should apply the brakes to skidding principles of action."

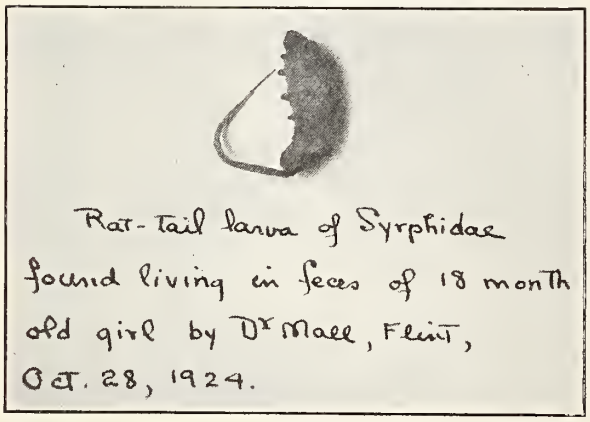
The Public Health Administration Forum was led by Dr. C. C. Slemons in the absence of Dr. Olin. Various questions of practical

interest to both health officers and nurses were brought up for discussion.

The closing number on the Conference program, the Tuberculosis Forum, was presided over by Blanche H. Rose, of Grand Rapids. Lucile Tenney of the Ingham County Tuberculosis Society told of the Society's clinic follow-up and of their summer camp activities. Gertrude Lee of Jackson County, also discussed follow-up, and described her plan of co-operation with the county nurse.

A number of social events, and section meetings were held in connection with the Conference. A tea for women guests was given on Wednesday by Dr. Blanche M. Haines and Miss Marjorie Delavan, and a second tea was given on Thursday by the Lansing District, Michigan State Nurses' Association. The Michigan Full Time Health Officers Association held a dinner meeting on Thursday. An all day conference of water purification and sewage disposal plant operators was conducted by the Bureau of Sanitary Engineering on Friday. A dinner was given by the Laboratory Section, Michigan Public Health Association, and the Lansing Branch, American Society of Bacteriologists on the same evening.

A CASE OF INTESTINAL MYIASIS DUE TO THE RAT-TAIL LARVAE OF SYRPHIDAE



Intestinal myiasis due to the larvae of *Eristalis tenax* of the *Family Syrphida, Order Diptera,* is not of common occurrence. The case herein reported may hence be of interest.

The adult form of the insect is known as the drone fly, a large fly resembling the drone honeybee. The eggs are deposited in liquid manure, or other filthy liquids or in decayed peaches. Infection of children may, therefore, occur through eating decayed fruit, drinking grossly polluted water, or playing on polluted soil. The larvae are commonly described as rat-tail larvae, because of the long anal breathing tube as shown in the photograph. They are a little over three centimeters in length, including the breathing apparatus, and, when alive, show a considerable activity.

Because of the fact that liquid excrement is a normal depository for the eggs of this insect, Herms[1] cautions against too ready acceptance of reports of such larvae as passed in a stool. Hall and Muir[2] have brought together the reported cases up to 1913, giving cases which are apparently incontrovertible, and Hall[3] has added further records bringing together a total of seventeen cases in which the rat-tail larvae were claimed to be present in the digestive tract of man. The conditions in the stomach simulate the normal conditions for the living larvae, inasmuch as there is sufficient air and food for their growth. Activity in the stomach induced by the eating of food by the patient may well account for the irritation with vomiting which is quite a common symptom.

On October 29th, 1924, a specimen of a rat-tail larva was received by the laboratories of the department from Dr. Carl F. Moll, of Flint, for identification. The larva had been passed in the stool of an eighteen-months-old girl, and was alive when passed. Report was made that the specimen was a larva of a Syrphida, and later the identification was checked by Prof. R. H. Pettit, professor of entymology at the Michigan Agricultural College. The following report of the case is quoted from a letter from Dr. Moll.

"Herewith is a history of the case: I was called to see the child in the afternoon. She was crying as though in very severe pain. Diagnosis of intestinal colic, due to improper diet, was made, and a prescription of calomel, ipecac, and soda was given. The following morning, after a large enema, sixteen larvae were passed, most of them being alive. Since that time, none have passed, and she has enjoyed excellent health. The family say that she is a dirt-eater, and they have to be constantly on guard to keep her from picking things up in the garden and eating them."

The case is obviously an intestinal myiasis with the Syrphida larvae as the cause, and the source of infection is in little doubt.

M. S. M.

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MICHIGAN HOURS OF SUNSHINE AND RICKETS

In view of the seasonal incidence of rickets with its peak in the winter and early spring months, together with the observations made by Dr. Alfred Hess and others

on the relation of rickets to the filtering out of the ultra-violet rays from sunlight by fog, clouds and smoke, the question arises whether Michigan has in rickets a deficiency disease due to its climatic peculiarities.

Granting the filtering out of the ultra-violet ray from sunshine as a factor in the development of rickets, it seems that Michigan has fewer hours of sunshine than most states in the Union owing to its position between the Great Lakes as well as to its latitude.

For comparison we submit the annual number of hours of sunshine and percentage of sunshine for all points of observation of the weather bureau for Michigan and some widely scattered points in other states. This material is from U. S. Agricultural Reports, Report of Chief of Weather Bureau for 1922-1923.

MICHIGAN

	Hours	Percentage
Alpena	2110	44
Detroit	2635	57
Escanaba	2445	54
Grand Haven	2490	53
Grand Rapids	2227	47
Lansing	2586	55
Ludington	2661	56
Marquette	2121	46
Port Huron	258	55
Saginaw	2644	56
Sault Ste. Marie	2170	46

OUT STATE

	Hours	Percentage
Albany, N. Y.	2413	53
Amarillo, Texas	3469	77
Bismarck, N. D.	2828	62
Bois, Idaho	2935	62
Boston, Mass.	2514	55
Charleston, S. C.	3134	70
Chicago, Ill.	2854	62
Columbus, Ohio	2719	60
Indianapolis, Ind.	2876	63
Denver, Colo.	2832	63
Pittsburgh, Pa.	2742	60
Portland, Me.	2406	53
Richmond, Va.	2601	57
St. Louis, Mo.	2792	62
San Francisco, Cal.	3213	71
Seattle, Wash.	2163	46
Tampa, Fla.	2840	64
Trenton, N. J.	2681	59
Vicksburg, Miss.	2721	60
Wilmington, N. C.	2845	63
Washington, D. C.	2477	55
Yuma, Arizona	4006	90

At no point of observation in Michigan did the percentage of sunshine reach 60 per cent, while many points outside Michigan recorded above 60 per cent.

The Michigan Department of Health has tabulated defects noted in the examination of 7,650 infants and preschool children, that is, children less than five years of age.

The following findings may be classed as rickets or conditions due to calcium deficiency or assimulation:

Active rickets	441
Bone and muscle defects (This includes old rickets, bowlegs, knock knees, beaded ribs, pigeon chest, etc.)	927
Decayed teeth	1,288
Total	2,656

A total of 34 per cent of all children examined showed either active or old rickets or a deficiency in calcium assimilation. Unquestionably the figures submitted would have been larger had the skeletal deviations from normal always been carefully noted.

In the absence of sunlight containing the ultra-violet rays, undoubtedly the anti-rachitic factor is best supplied by cod liver oil in small preventive doses.—B. M. H.

CONDENSED MONTHLY REPORT

Lansing Laboratory, Mich. Depart. of Health, Dec., 1924

	+	—	+—	Total
Throat Swabs for Diphtheria				4215
Diagnosis	139	744		
Release	361	1106		
Carrier	34	1800		
Virulence Tests	22	9		
Throat Swabs for Hemolytic Streptococci				3882
Diagnosis	206	640		
Carrier	142	2894		
Throat Swabs for Vincent's	17	797		814
Syphilis				8654
Wassermann	847	3463	87	
Kahn	925	3265	67	
Darkfield				
Examination for Gonococci	195	1783		1978
B. Tuberculosis				390
Sputum	54	336		
Animal Inoculations				14
Typhoid				143
Feces	15	63		
Blood Cultures	2	16		
Urine	1	2		
Widal	11	33		
Dysentery				1
Intestinal Parasites				26
Transudates and Exudates				106
Blood Examinations (not classified)				219
Urine Examinations (not classified)				284
Water and Sewage Examinations				492
Milk Examinations				51
Toxicological Examinations				6
Autogenous Vaccines				6
Supplementary Examinations				277
Unclassified Examinations				743
Total for the Month				22287
Cumulative Total (Fiscal year)				115854
Increase over this Month last year				4043
Outfits mailed out				16991
Media Manufactured, c.c.				338276
Diphtheria Antitoxin distributed, units				
Toxin Antitoxin distributed, c.c.				
Typhoid Vaccine distributed, c.c.				225
Silver Nitrate Ampules distributed				4004
Examinations made by Houghton Laboratory				1049

The Journal
OF THE
Michigan State Medical Society
ISSUED MONTHLY UNDER THE DIRECTION OF THE COUNCIL

PUBLICATION COMMITTEE
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C. D. Darling.....Ann Arbor
J. D. Bruce.....Saginaw

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Grand Rapids, Michigan

Entered at Grand Rapids, Michigan, Postoffice as second class matter.
Acceptance for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917, authorized August 7, 1918.

All communications relative to exchanges, books for review, manuscripts, news, advertising and subscriptions are to be addressed to F. C. Warnshuis, M. D., 4th Floor Powers Theatre Building, Grand Rapids, Michigan.
The Society does not hold itself responsible for opinions expressed in original papers, discussions, communications, or advertisements.

Subscription Price—$5 per year, in advance

FEBRUARY, 1925

Report Malpractice Threats Immediately to Doctor F. B. Tibbals, 1212 Kresge Building, Detroit, Michigan.

Editorials

THE INDIVIDUAL PHYSICIAN AND THE AMERICAN MEDICAL ASSOCIATION

Why a Fellow?

"Why should I be a Fellow of the American Medical Association?"

"In what way does its activities affect me, the individual practitioner of medicine?"

These are fair questions. You who are invited to be a Fellow have a right to ask for evidence that the Association is functioning actively in the interests of physicians. The following partial inventory of its activities is therefore presented. It shows in a brief way what the American Medical Association means to physicians individually and to the profession in general. Every member in good standing is eligible for Fellowship. All that is necessary to qualify is to make application and subscribe for The Journal.

How the American Medical Association Functions

A large, nation-wide organization must necessarily delegate its activities to smaller bodies or to individuals. The House of Delegates of the Association determines its policies. The Board of Trustees is the governing body in the interval and is charged with the duty of administering the affairs of the Association.

The work of the American Medical Association is carried out largely through its executive officers, its various councils, its bureaus and its publications. Every Fellow and member should consider these as his representatives.

Council on Medical Education and Hospitals

This body has brought the standards of both premedical and medical education to a basis by which they are recognized throughout the world. Through its activities, extremes have been avoided, although college entrance requirements have been raised to a reasonable point, college sessions have been lengthened, courses reorganized, better buildings and laboratories secured, better equipment provided, including libraries and museums, more and better teachers employed, better clinical material obtained and more improved methods of teaching adopted. Detailed information concerning all schools is maintained in the secretary's office. Uudergraduate institutions are inspected and rated as "Class A," "Class B" or "Class C." All possible cooperation is given to a institution in its effort to raise its classification. There are now seventy "Class A" schools and the opportunities for a medical education in America are equal to those found anywhere.

In co-operation with state licensing boards, the Council works to secure better reciprocal relations for physicians and to improve medical practice laws. The Council also has elaborate facilities through which detailed information in regard to all medical students and physicians is regularly collected, and kept on file. This makes it possible to recognize and support the legally and educationally qualified professional man and to expose quacks, healers, "impostors and incompetents." In short, the Council stands as a guard to keep the medical field from being overrun and discredited by entrance of the unfit. Its resources have been used with telling effect in the past, and continue in use today to protect the interests of those who are now legally qualified to practice medicine.

Biographical Department

This department is under the supervision of the Council on Medical Education and Hospitals. Since 1905 it has been collecting personal data regarding licensed physicians and medical graduates for a biographical card index of physicians of the United States and Canada. These records are avail-

able to all Fellows of the Association. They enable members of the profession to keep tab on location, society affiliations, specialty, teaching connection and other personal data concerning colleagues. These data may be obtained either by writing to the Biological Department or by consulting the American Medical Directory, which is issued every two years and is a reliable, authentic register of over 95 per cent of the members of the profession.

Hospital Department

This department keeps data on more than 7,500 hospitals and sanatoriums in the United States and Canada. It is at the service of each Fellow of the Association. It has facilities for telling him about institutions for unusual cases, for assisting in staff organization, for giving information regarding physician's' office buildings, group clinic buildings, combined offices and residences and hospital building plans; advice about the problems of cults in hospitals, data on group clinics, dispensaries, laboratories and general information regarding all hospitals whether general or special.

Council on Pharmacy and Chemistry

Through the Council on Pharmacy and Chemistry, the Association offers protection to physicians in choosing proprietary remedies. Sixteen scientific men, each an authority in his special field, make up the Council. Newly introduced medical preparations are considered in the light of cold, scientific evidence. The findings are reported in The Journal A. M. A. and in the book "New and Nonofficial Remedies," issued annually. Here the physician can check up on claims made for medical preparations which he may be urged to use. In many cases, the Council finds that certain remedies marked under proprietary names and at exorbitant prices, are no more efficacious than the ordinary U. S. P. products. Many preparations are discovered to be irrational mixtures, many utterly inefficient for the purposes for which they were made. Fellows of the Association are privileged at any time to obtain information from the Secretary of the Council relative to medicinal preparations.

Propaganda Department

This department is a clearing house of data on patent and proprietary medicines, all forms of quackery and fake cures. The practical value of this information is proved by the thousands of letters of inquiry that are received annually by the Propaganda Department from physicians in every state in the Union and practically every foreign country of any size. Any physician desiring specific information on some preparation can feel free to write to the Propaganda Department asking for details and facts. Each letter of this kind is given careful answer, and in the majority of cases, it is possible to send pamphlet or reprint of an article on the subject of his inquiry.

At times, the physician may wish to give a talk before his local Kiwanis or Rotary Club on some phase of the nostrum evil or quackery. The Propaganda Department is always glad to send him data in the form of pamphlets and for a nominal fee will rent a set of lantern slides that may be used effectively in illustrating the talk. Forty large educational posters dealing with practically every phase of quackery and the nostrum evil are also available for health exhibits. These can be purchased for a nominal sum and in certain instances, the Propaganda Department donates a set of posters to the cause.

Bureau on Health and Public Instruction

The Bureau of Health and Public Instruction seeks to educate the public through the columns of Hygeia, a monthly magazine of individual and community health, by the dissemination through lay publications of carefully prepared articles, and through a series of instructive pamphlets written by recognized medical authorities. The Bureau also offers assistance in the compilation of material for addresses on health topics by supplying abstracts and illustrative material.

Health items from Hygeia are being broadcasted from a number of radio stations and inserted in newspapers throughout the country.

Health material—posters, pamphlets, etc., are shown at health exhibits of lay associations. The Bureau co-operates, where possible, with other organizations such as the National Educational Association in promoting health activities. The Bureau undertakes the study of special problems assigned to it, such as the periodic medical examination of the apparently healthy.

Each year, thousands of pamphlets on baby welfare, sex education, contagious diseases, cancer, school health problems and other subjects, are distributed.

Bureau of Legal Medicine and Legislation

This Bureau keeps in touch with legislation and court decisions of interest to physicians, such as those relating to the prescribing and dispensing of liquor and narcotics, income and other taxes relating to the practice of medicine, quarantine laws, vaccination, medical malpractice, protection of scientific research, etc. Information and

experience collected by the Bureau is available to all Fellows and members of the Association through their respective state medical societies.

A. M. A. Library

The A. M. A. Library, while not pretentious, has very good facilities for rendering service to the profession. More than 250 medical journals, domestic and foreign, are regularly received, abstracted and indexed. These abstracts are available through the columns of The Journal A. M. A. A complete index of all articles currently published is arranged both by subject and author and furnished in the Quarterly Cumulative Index to Current Medical Literature. Any Fellow of the Association is entitled to use the facilities of the library and to call upon the library for a list of references on any medical subject of interest. Any foreign medical journal on file in the library can be borrowed for a reasonable length of time without charge. A package service has recently been established through which members can secure, for temporary use, original articles on a variety of subjects.

Publishing Department

By developing its own printing plant, the Association is able to furnish medical publications at a great saving. This department includes extensive type equipment, linotype machines, flatbed and rotary presses and necessary bindery machinery for producing medical journals, books, pamphlets and supplies on a large scale, and at a reasonable cost. For example, the weekly issue of The Journal A. M. A. in one year make a total of more than 4,000 pages of reading matter attractively illustrated and well printed on good quality paper. The cost is but $5.00, including Fellowship dues. Hygeia, the lay health journal, at $3.00 per year is printed on the Association's presses and compares in typography, illustrations and general attractiveness with other high grade magazines. The printing department also makes possible several special journals—"Archives of Internal Medicine," $5.00 per year; "American Journal of Diseases of Children," $4.00 per year; "Archives of Neurology and Psychiatry," $8.00 per year; "Archives of Dermatology and Syphilology," $8.00 per year; "Archives of Surgery," $8.00 per year, and "Archives of Otolaryngology," $6.00 per year. Journals such as these necessarily have a limited appeal and would have to have a much higher subscription rate if printed by private concerns. This also applies to the Quarterly Cumulative Index to Current Medical Literature, which gives the user a reference to practically all worthwhile articles, yet is furnished at a cost of $8.00 per year.

The American Medical Directory is another publication made possible by the facilities of the Association. This is issued every two years. It is a book of about 2,500 pages and gives minute personal data on 95 per cent of the physicians in the United States and Canada and about 7,500 hospitals. It is furnished at a cost of $15.00.

In addition to the regular periodicals issued by the Association, hundreds of thousands of circulars, reprints, leaflets, posters, etc., bearing on medical and health topics are printed and distributed annually.

Co-operation with State Associations and County Societies

Through the office of its Secretary and through its Councils and Bureaus, the Association endeavors to keep in touch and to co-operate with state medical associations and county medical societies for the promotion of the welfare of the individual physician.

A. M. A. Bulletin

The Bulletin goes each month, except July, August and September, to all Fellows of the Association. Its columns are given over to the discussion of subjects pertaining to medical economics, medical organization and matters of general professional interest.

Information Service

The bureaus and departments of the Association reply to many thousands of letters each year, answering requests for information in which physicians are interested. Thus the various offices of the Association constitute a veritable service bureau for the benefit of its members.

Catalogue

A catalogue and price list of the publications of the Association may be had for the asking.

Visitors Welcome

Members and Fellows are urged to visit the offices of the Association and to look over its plant and its work.

In Conclusion

Thus, in many ways, the Association is functioning in behalf of the individual physician. The benefits from its various councils, from its resources and its facilities are real and tangible. To take a full share in continuing and expanding its activities is the privilege of each physician who is a member, in good standing, of his county and state medical organizations. The annual dues for Fellows of the Association are $5.00. This includes subscription to The

Journal of the American Medical Association and to the A. M. A. Bulletin. The subscribers to The Journal now total almost 85,000 and of this number more than 54,000 physicians hold A. M. A. Fellowship cards.

Our members are urged to affiliate.

MORE BUREAUCRATIC PROPAGANDA—CHILD LABOR AMENDMENT

The attempt to amend the Constitution of the United States for the purpose of invading American homes and controling the child is another effort on the part of propagandists to fasten upon the people all the baneful results attendent upon bureaucratic policies. Miss Julia Lathrop, who is actively engaged in propaganda work and whose efforts may be questioned, recently appeared before the Grand Rapids Rotary Club sponsoring the enactment of the proposed amendment. At a subsequent meeting of the club one of the editorial writers of the Press, Mr. Woodruff, replied to her argument. In as much as the subject is one of interest to the profession we are grateful for being able to publish this reply which is as follows:

Perhaps there is no better introduction to the subject than to recall that Miss Lathrop, a highly educated, most intelligent and shrewd advocate, stood upon this platform three weeks ago and appeared before another local audience the same night in the defense of the proposed twentieth amendment, emphasizing that it was in no sense a Bolshevist measure, that it had the support of a long list of women's clubs and the American Federation of Labor, that it was the logical successor to two child labor acts declared unconstitutional by the supreme court, and that it was the sort of change the fathers of the Constitution hoped we, their heirs and successors, would make when their imperfect document came down to us.

It is one of the oldest devices of debaters to concentrate upon the weakest points of the opposition. Miss Lathrop rang all the changes upon the charge, made in the course of the recent referendum campaign in Massachusetts, that this was a "Red" or "Radical" or "Socialist" measure. In the heat of a campaign and for the political effect of catchwords many points are made which would not be offered quietly in reasonable discussion. Miss Lathrop is absolutely right in her contention that the child labor amendment is under no conviction of "Radicalism" merely because Mrs. Florence Kelly, its initiator, was once married to a person of Russian extraction. Neither is it necessarily "Radical" because Victor Berger happened to like it; nor because Owen Lovejoy, head of the National Child Labor committee, happened to be a friend of Gene Debs.

In fact, it is a waste of time even to call it "Socialistic." Issues must stand on their own feet in intelligent discussion, not be thrown out or accepted because of some party tag attached to them. If we were to catalogue all the reforms throughout recent American political history which had the platform support of the Socialist party we should not know where to call a halt. For a few examples, there are the women's suffrage amendment, higher income and inheritance taxes, workingmen's compensation, factory safety inspection, and federal waterpower control. Moreover, if the grant of power contained in the twentieth amendment—the power to limit, regulate and prohibit the labor of persons under eighteen years of age—is in itself Socialistic, then obviously every state in the Union has a constitution honeycombed with Socialism. For there is not a state without the power, at this very day, to limit, regulate and prohibit the labor of minors all the way up to twenty-one.

However, it is absolutely unnecessary to tar the proposed twentieth amendment with the pitch of Socialism in order to condemn it in the minds of any American devoted to the historic traditions of this nation. In the first place, it is being borne in upon our federal union as time goes on and government pries increasingly into business that federal or centralized regulation of private life should be substituted for state and local regulation only in the face of the most obvious and overwhelming necessity. I shall attempt to demonstrate to this fact, and then to show that the child labor amendment is offered in answer to no such vital public demand, that its evils one by one are being met, and that as a matter of fact it is of that particular type of proprietary interference which least well adapts itself to federal control. In short, that there is no call for us to make an exception to the rule of keeping the national government in its own sphere and the states in theirs.

Miss Lathrop was particularly careful to point out that the constitutional fathers, as proof that they thought their Constitution needed amendment, changed it themselves no less than ten times in the first session of congress. But Miss Lathrop was equally careful to overlook the fact that every one of these first ten amendments sought to

protect the average American citizen against precisely the sort of regulation from Washington that the child labor amendment would permit. Each of the ten secured the individual in the free exercise of his conscience and his opinions, or in the conduct of his private pursuit of wealth and happiness, or in the regulation of his family. He was guarded by them against undue searches, seizures, quarterings, religious persecutions, fines, imprisonments, confiscations and the like; and, finally, assured that whatever was done outside the functions strictly reserved to congress would be done by his own state, and by neighbors closely enough acquainted with conditions so that he would be reasonably sure of just and sensible treatment. The police powers of the nation, in other words, were reserved to the states.

When we break into this reserved sphere of state action with a federal police statute, we substitute a distant, vague authority, largely and necessarily unacquainted with local conditions, for a state authority which has lived with and exercised police power over those conditions and whose enforcing officers are locally known and respected. We put in the hands of a great bureau at Washington powers and duties too large and intricate by far to be properly executed —and duties which often will not be executed where local sentiment objects to their application. As one writer has put it, "The government at Washington cannot successfully reach into the localities and enforce a legal standard of personal living which the bulk of the people of that locality do not support." Moreover, this action undermines that sense of local responsibility upon which the character and vitality of American democracy has always rested. The political body needs just as much exercise as the physical.

When Chief Justice William Howard Taft delivered the supreme court opinion declaring the second congressional child labor law unconstitutional he made this significant statement: "In the maintenance of local self-government, on the one hand, and the national power, on the other, our country has been able to endure and prosper for nearly a century and a half." The reminder that a just balance between these co-ordinate agencies, the nation and the state, is necessary to our national welfare is most decidedly needed in these days when every reformer is running to congress to get a law, a policeman and a club.

Only last month President Coolidge remarked: "The efficiency of federal operations is impaired as their scope is unduly enlarged. The efficiency of state governments is impaired as they relinquish and turn over to the federal government responsibilities which are rightfully theirs."

If we accept, then, as a fact the statement that regulation of local affairs from Washington is unwise except in cases of the most pressing necessity, can we say that the need of a child labor amendment is of this exceptional type?

Let us admit, if you will, that there are some 185,000 persons under 16 in the United States engaged in industrial employment—some of them in noninjurious occupations to be sure, out of school hours and only part time, some of them cases where further schooling is futile and a sensible manual apprenticeship the best possible education. Let us admit that in a proportion of these cases the state is to blame, health suffers, and children are actually in some danger from which it might seem the states had fallen down on the job. And then let us turn back the leaves of the calendar twelve years, and consider a compilation recently made of the contrasts between child labor legislation then and today.

In 1912, only twenty-one states prohibited the labor of children under fourteen in factories and stores. Today forty-five states or all but three, prohibit it. In 1912 only twenty-one states prohibited the labor of children under sixteen in dangerous trades. Today nearly all states prohibit it, and many rise above that standard. States limiting the industrial work of children to eight hours a day have doubled in number. There are now thirty-one such states. All but five states now have some prohibition of night work. The educational requirement has been raised in many states, and nearly all have some educational minimum. Ten years ago less than half the states had a physical test to determine whether children might work. All but nine have it today. Ten years ago only six states required a physician to pass on a child's fitness to work. Today twenty-two states require it.

We may be reasonably certain that progress as marked as this will continue; that states will continue to be shamed and persuaded into meeting the genuine evils of child labor for themselves. The amendment might and might not speed the time when the few backward states would come up and toe the mark. In exchange for this brief setting forward of anti-child-labor effectiveness, actually required in any pressing sense in only three states of the Union, all the states together would be subjected to the inroads of that particularly exasperating and unreasonable species of trouble maker, the

federal investigator; a bureau at Washington would put a building and expand its officers, hire statisticians and add to the cost of government; another batch of pestiferous little cases would be dumped on the federal courts, whose dockets are already clogged with a mass of prohibition cases rendering the administration of substantial justice in important matters almost impossible. Meantime, with the removal of the sources of income from destitute families, from widows unable to find work and from children in states possessing no equipment to keep them in school until the age of sixteen, new responsibilities might be expected to crowd upon the federal government. The dole and subsidy system to pension mothers and provide standard schools, would be a more or less natural demand. Federal scholarships and federal regulation of education are the next step. If we wish to be sure not to reach this extravagant and costly stage, we had better not take the first.

As it is not only feasible, but in accord with American constitutional tradition to leave police activities to the states, why let ourselves in for a further federal usurpation of these activities? In the long run is not the cure worse than the evil we desire to eradicate? And would not a little time cure it anyway? That is the question I would leave with you.

It is an easy matter for advocates like Miss Lathrop to stand upon a platform and laugh away the suggestion that congress might go to all the excesses permitted by this blanket amendment, or even to avail itself of any considerable part of them. But it is not so easy to find ground for this confidence in the actual record of congress.

Congress when legislating in such matters is peculiarly the prey of the half-baked reformer, the easy meat of the forceful minority. It sits apart from our daily life, and no such watch and ward attends its daily action as is vigilantly turned upon every movement of a state legislature. When its was determined that congress possessed the constitutional right to assess income taxes, no one in his right mind would have supposed that in the space of a few years congress would interpret this permission to justify the spreading of a man's business secrets before his social peers and business competitors by means of the publicity of returns. Yet the thing has happened. In the face of congress' actual record Miss Lathrop's childlike trust in its temperance and self control is sanguine to say the least.

There is only one path of safety and of political wisdom—the path which will spare congress even the temptation. In the long run the cure proposed would be more of a burden than the evil we wish to eradicate. And their progress of recent years offers ample ground for the belief that child labor will be brought by the states within its proper limits without the assistance of a long arm stretched from Washington to do their work for them.

DIPHTHERIA

Antitoxin in full dosage is recognized beyond any dispute as the only effective measure in the treatment of diphtheria. Toxin-antitoxin is likewise recognized as the only effective means for preventing diphtheria by creating an artificial immunity. It is to diphtheria what vaccination is to smallpox.

As a preventative and prophylactic measure the use of toxin-antitoxin should be urged by every physician. It is his duty to draw the attention of parents to this almost certain immunizing measure. It is the physician's duty and obligation to practically insist that parents themselves and their children receive toxin-antitoxin and to administer it.

Diphtheria is far too prevalent in Michigan. It need not be if a wider use of toxin-antitoxin is manifested. Diphtheria can be practically eradicated if a state-wide immunization is accomplished and the profession must recognize its responsibility and thus reduce our mortality and morbidity statistics.

Health departments and health officers are charged with the duty of reducing the number of infections and contagious diseases and to enhance the health environment of the public. These health officials realize that our diphtheria situation can be radically improved. They have reason to expect that the doctors will aid them by urging the use of toxin-antitoxin. If on the other hand, our health officials find that doctors are not using or recommending toxin-antitoxin, then it becomes obligatory for Health Departments to undertake to immunize the people against diphtheria. In doing so there can be no foundation for complaint on the part of doctors because Health Departments are undertaking to do what the profession is neglecting.

We therefore urge that County Societies undertake in their county a campaign of education of the people upon the subject of diphtheria. Such a campaign to be followed by planned arrangements for the immunizing against diphtheria of every person in that county. This is your individual duty and an obligation of your County Society. If you fail to recognize that duty and re-

sponsibility then don't complain, holler or rant because health officers step in and do what you are neglecting. They will be fully justified for it then becomes their duty.

We are certain that the State Department of Health and its local representatives will lend you every assistance and will undoubtedly furnish free the required toxin-antitoxin. It remains then for the profession to acquit itself and failing, for health officials to step in and do the job. Which course do you prefer?

COUNTY HEALTH OFFICERS

The problems and activities of health enhancement involve more than the tacking up signs or the serving of notices to remove garbage. Efficient health officers must be trained, instructed individuals. It is no longer a layman's job delegated to township citizens. Every county should have a County Health Officer charged with specific duties and so trained as to efficiently discharge them.

Some years ago such a bill was introduced in our legislature. It failed to pass. We understand that the present legislature has such a bill under consideration. We are advised that its provisions are sane and wise. We sincerely hope it will become a law. Like all bills, to secure passage, endorsement and urging are necessary. So to with this bill; it requires endorsement, support and the filing of requests for its passage. Here again County Societies can demonstrate constructive effort by the passing of a resolution urging the passage of a bill to provide county health officers. Draw up such a resolution, present it at your next meeting and send to the Editor a report of your action. We will see that your resolutions are presented to the proper legislators. We recommend such action by our County Societies.

DUES

To avoid error and obviate possible misunderstanding, attention is called to the following points:

The Annual Dues of the State Medical Society are $10.00 per year.

They are to be paid to the Secretary of your County Society in addition to the local county dues.

The County Secretary will remit your dues to the State Secretary. Individual members are advised not to send in their State dues to the State Secretary.

An individual cannot join the State Society without first being a member of the County Society.

The State Secretary will send to each member his State Certificate when his state dues have been received from the County Secretary.

State dues for 1925 became payable on January 1st. It is urged that you make prompt payment to your County Secretary.

Editorial Comments

We intend writing about attendance, society activity, committee work, and membership responsibilities until desired results have been obtained. If you are getting tired of reading this type of comments, our only recommendation for the securing of relief is for each member to record an awakened activity and tangent results. Until then we purpose keeping everlastingly at it.

District clinical conferences were conducted at Bay City, January 22nd. Arrangements have been perfected for conferences at Adrian on February 12th, Jackson on February 19th, and Flint on February 29th. Members in these localities are urged to grasp these opportunities for attending what are proving to be most valuable meetings. Urge your neighboring doctor to accompany you.

To testify against a fellow physician is equivalent to making a bid for a malpractice suit against oneself. It is true, mistakes are made, but as a rule they are unintentional. They are really accidents. Because a fellow doctor has had an accident it is not a justification for you to testify against him. You gain nothing and you harm your fellowman as well as fostering, by encouragement, a suit against yourself or some other doctor. Far better will it be to remain neutral, rather than to criticize or condemn your fellow.

Do not forget your 1925 dues. Remit them to your own County Secretary, and please do it.

For a time the opinion was prevalent that many breast-fed babies were being overfed. The advice was common to do everything to prevent overfeeding. Four-hour feeding, socalled, was advised. Experience soon revealed that the danger of overfeeding had been unduly stressed and that the real danger was underfeeding. The opinion that now exists is that more new-born and young babies are underfed.

A short time ago we commented upon Dr. J. H. Kellogg's fifty years' service as editor of "Good Health." With the commencement of the sixtieth volume of "Good Health" and the fifty-third year of Dr. Kellogg's editorship we cannot resist comment on the publication itself. In the first place, it appears in enlarged form, with excellent paper and a demonstration of high grade typographical workmanship. It is well illustrated and physically its appearance is pleasingly attractive and commanding. It's reading contents is comprised of well written articles on food, health and biological living, subject matter upon which the public requires education and which we, as a profession, must convey to the public. "Good Health" is thus assisting us in our campaign of public health education and is doing so in an effective manner. "Good Health" is an asset to our professional work and we are proud that Michigan has such a publication. We extend congratulations to the editor and publisher.

Your old typewriter worn out? Do you need a new one? Well, your best buy is an Underwood, rebuilt by the Shipman-Ward Company. We know, for we are using them and can testify to their value. It is a machine that gives every satisfaction. It is new in every way and in appearance no one can tell it from a $110 typewriter. See their "ad" in this issue. You can secure it for $3.00 down. Secure one, for you will be fully satisfied and in addition you will be aiding us in the securance of an advertising contract. Please lend this assistance.

All our advertisers merit your patronage. They make your Journal possible. They are entitled to your business. We invite you to read our advertising pages and to support your publication committee in their effort to send you a better Journal.

Dr. Wm. Allen Pusey, president of the American Medical Association, and a recognized authority in dermatology, will be the invited guest of the Kent County Medical Society on the evening of February 25th. Dr. Pusey's subject will be: "Our Changing Knowledge of Eczema." A cordial invitation is extended to all physicians to hear this distinguished speaker.

Our Michigan State Board of Registration, by resolution, has agreed to recognize the certificates of the National Board of Medical Examiners and to issue Michigan licenses to holders of certificates of the national board.

It must be obvious as to why it is inexpedient to report in detail the activities of our Legislative Committee. We can assure our members that we have an active, aggressive, alert committee that is functioning one hundred per cent. The committee requires co-operation and it is urged that their communications to officers receive prompt attention and compliance.

They relate that an uncanny and embarrassing sensation is experienced by a speaker or singer broadcasting a speech or a song to unseen audiences through a microphone. We can readily appreciate the nature of such a sensation by reason of our editorial experiences. An editor speaks, by means of writing, to an unseen audience of readers. He often wonders if they are dumb, spellbound, paralyzed or without typewriter, pen, ink or postage stamps. He is entitled in a measure to such an opinion. Recently we made two requests: One, that members send in well worked case reports for publication; the other, that members send in to our department, "Among Our Letters," queries, comments, opinions or suggestions on any topic of interest to the profession. Thus far there has been a mighty silence. We repeat the request and trust that a desired response will result.

The Annual Secretaries' Conference will be held in Grand Rapids on April 22nd. County Secretaries are invited to note the date and plan to be in attendance. A profitable program is being arranged and it is anticipated that some pleasing entertainment will be provided.

Between cross-word puzzles and radio health talks the day is far too short to accomplish all that lies before one. Telephone calls are frequent from friends and patients seeking the name of the "shin bone," "surgeon's circular saw," part of the eye beginning with 'i' and of four letters," etc., and also, whether the advice to "lie down on one's bedroom floor with the windows open and do a rolling act, might not induce pneumonia," etc. Possibly a fortune awaits one if he formulate into book form "Medical Terms Used in Cross-word Puzzles," and then somebody please arrange to censor some of these radio health talks given by lay workers or clinic attendants. We are sure we all will be relieved of answering foolish telephone inquiries.

Chicago has ever had reason for recognition, but now more than ever it can lay claim for distinction as being the only city in the world where it is necessary "to steal water." The United States Supreme Court, however, has decreed that the thieving must cease within ninety days. Poor Chicago, it will have to look around for new fields to conquer. We suggest it continue to fill in it's lake front so that in due time it can be attached to Michigan and become a suburb of Benton Harbor.

Wayne county has set a splendid example by it's Beaumont Lectureship Courses. Announcement is also made of an Orthopedic Foundation with the first oration to be given on March 16th, by Robert B. Osgood, M. D., Professor of Orthopedic Surgery at Harvard. The subject of his lecture will be, "The Evolution of Orthopedic Surgery." We hope to be able to give a synopsis of the Beaumont Lectures given by Doctors Chas. Mayo and H. S. Plummer on January 26th, in our next issue. These Foundation Lectures are a splendid educational feature of County Medical Society activity. With Wayne's successful inauguration of such lectures, several of our other County Societies might well and readily undertake similar courses. We look toward a spreading of such plans about the state.

The minutes of the January Council Meeting and of the Joint Committee on Public Health Education will be found in this issue. Especial interest is urged in the work of the Joint Committee. Every County Society should sponsor at least six of these meetings in their county before May 1st. It's time you were putting a committee at work on this activity.

A statement was published last month imparting that by reason of Dr. B. D. Harison's death his widow was left in straightened circumstances. Voluntary contributions were solicited for her relief. At the time of going to press the following contributions have been received:

A. W. Hornbogen	$ 25.00
Dr. Sawyer	25.00
Guy L. Connor	100.00
Staff, Grace Hospital	1,175.00

In our editorial last month on Endowments we advanced the suggestion that there were those who were blessed with financial resources who could readily make a contribution of from $500 to $10,000 to establish an Educational Fund for our State Society. At this time we desire to extend an invitation for such contributions. Who among our members is willing to make the first contribution? A nucleus is requisite before we undertake personal solicitations. It is a most worthy cause and one that will reflect its influence upon the profession for years that ever continue to lie before us. May we not have a response? Will not several start the movement? The principal will be deposited in trust and its earnings will be expended solely for the medical advancement of our members. We look for your response.

Judging from experiences the public is overly eager to obtain reliable information upon personal health preservation. Public meetings are well attended and dependable literature is sought and read with avidity. Our responsibility is to see that the public

receives authentic information. County Societies are neglecting their work if they do not instigate these public meetings. Periodical physical examinations should be urged and its value indicated. We trust that this problem will receive consideration by every County organization.

Speaking of committees, the incoming President of each County Society annually appoints a list of committees. Except in isolated instances that constitutes committee activity. We urge that County Presidents this year use the "big stick" on their committees. Especially do we recommend that the Committee on Public Health Education be prodded and that they conduct a series of public meetings in conjunction with the State Joint Committee. Get busy, men, and cut out this attitude of letting "Tom do it."

We invite attention to our County Society news pages. Ascertain what your sister societies are doing. Pick out the best from these reports and institute those features in your county. We commend these reports to your study with the hope that they will serve as an inspiration.

Minutes of the Mid-Winter Meeting of the Council

Pursuant to the action taken at the special meeting of the Council held in Detroit in December, a quorum of the Council convened in the Post Tavern, Battle Creek, at 9 a. m., January 14th, 1925 with Chairman Jackson presiding. The following were present: Jackson, Stone, McKenzie, Greene, Corbus, Randall, Darling, President Clancy, Executive Secretary Smith and Secretary-Editor Warnshuis.

Medico-Legal Committee Report

Dr. F. Tibbals, Chairman of the Medico-Legal Committee, submitted the following annual report:

Detroit, Mich., January 10, 1925.

To the Council:
Michigan State Medical Society.
Gentlemen:

The 1924 work of the Medico-Legal Committee was eminently satisfactory. The total number of cases reported was 34 as against 39 in 1923, but the total number of cases tried was 16 as against 9 in 1923. These 16 cases were all won with the exception that in one case the associated insurance company settled during the trial for $100.00. It is, of course, understood that the expense of trial to us depends largely on the number of days the trial continues and we have been fortunate this year in having no especially hard fought cases. Our cash balance at the end of the year was $4,458.38, in addition to which we placed $1,000.00 in our sinking fund during 1924. Despite the fact that the expense of legal defense has increased greatly since the war, we have been successful, through our local organization in each county, generally, in securing strong professional backing for the defendant and this makes the defense comparatively easy. As we have previously pointed out, cases of actual malpractice from the professional viewpoint are exceedingly rare, but in any community with a disorganized medical profession it is sometimes possible to secure professional support for an unjust case. Wherever the profession is harmonious and united, malpractice suits seldom arise and almost never are successful. Illustrating this last statement, we cite one county in which, during 1924, there were six cases reported, four of which went to trial. The inception of this large number of cases in this county society with less than 75 members is, we think, more attributable to the hungry lawyer than to the jealous doctor. We reach this conclusion because we are not aware of any lack of professional harmony in this county and especially because in the defense of these cases the profession stood together in a solid phalanx. As a result of this professional unanimity the four trial cases were won easily and the two other cases have been dropped and we predict that this county will be immune from malpractice suits for some time to come. Nineteen hundred twenty-four completes fifteen years of this work under the supervision of almost the same personnel. Three members of the executive board have served since 1910 and our very efficient attorney, Mr. H. V. Barbour, has served the same length of time. We believe that much of the success of this work in Michigan is due to the unchanging policy adopted at the start. This policy consists of a fighting defense for practically every unjust charge arising out of the practice of medicine and the long experience in this class of work gained by our attorneys make them far the best trial lawyers in the state for malpractice cases.

Respectfully submitted,
F. B. TIBBALS,
WILLIAM J. STAPLETON, Jr.

On motion of Randall-LeFevre the report was adopted.

On motion of Randall-LeFevre the annual honorarium for the Chairman of the Medico-Legal Committee was fixed at $1,000.00. Carried.

Secretary-Editor's Supplemental Report

Secretary-Editor Warnshuis submitted for the Council's information the following supplemental report:

To The Council:

This supplementary report to my annual report rendered in December is submitted at this time to impart general information upon the present state of our organizational activities.

1. *Annual Meeting*—Tentative details have been discussed with the General Chairman of the Committee on Local arrangements of the Muskegon County Medical Society. A meeting of the section officers has been called for January 28th, at which time the features of the scientific program will be determined.

2. *Post-Graduate Medical Conferences*—Since the last meeting of the Council one conference has been held at Niles. Three conferences will be conducted during the latter part of this month. Our plans call for the holding of district conferences so that all the Councilor Districts will have been covered by May.

3. *Increased Dues*—From reports received every County Society has enthusiastically endorsed the increase of our dues.

4. *Legislation*—I am pleased to report the functioning of an alert, active legislative committee. It must be plainly obvious as to why details of their activity cannot be outlined. The assurance is registered that our State Committee is attending to our

legislative interests and that it has the co-operative support and assistance of the Wayne County Legislative Committee. It is urged, however, that Councilors forcibly impress upon the officers of the County Societies of their district, the need for prompt compliance to requests sent them by mail communications.

5. *Endowment Fund*—Your Secretary recommends that formal action be taken authorizing the raising of an Educational Endowment Fund. The principal of the fund to be held by the Council in trust and the earnings of the fund to be disbursed for the expenses connected with post-graduate medical educational work among our County Societies and members.

F. C. Warnshuis,
Secretary.

Annual Meeting Date

On motion of LeFevre and McKenzie, September 8, 9 and 10th was fixed as the date for the holding of our annual meeting in Muskegon. Carried.

Honorary Members

On nomination of Randall and Corbus, Dr. C. B. Burr of Flint and Dr. Joseph McNeece of Morley, were recommended to the House of Delegates for election as honorary members.

Legislation

The Secretary and Executive Secretary reported in somewhat detail the work that had been done in regard to legislative matters. The Council engaged in a general discussion of the subject and commended the work of the committee with special mention of Dr. Bradley, Davey and McCutcheon.

Diphtheria Prevention

On motion of Randall and Greene the need of activity on the part of the County Societies to aid in the prevention of diphtheria and the use of toxin-antitoxin was recommended. County Societies are urged to become actively interested in this health measure.

County Health Officers

On motion of Darling and Greene, the endorsement of the bill to provide county health officers was referred to the Executive Committee with the recommendation that Dr. Olin be invited to a conference for a discussion of the subject.

Tuberculosis Education

The Council authorized the Committee on County Societies that is in charge of the Clinical Conference to join with the State Association in the matter of Tuberculosis clinics.

Endowment Fund

On motion of Randall and Greene, the Secretary was authorized to solicit an endowment fund. Carried.

Minutes

On motion of Greene and Stone, the minutes of the Special Meeting of December were approved and ordered incorporated as part of the minutes of this regular session of the Council. Carried.

The Council adjourned at 12:30 to join the Joint Committee on Public Health Education in their regular quarterly meeting.

F. C. WARNSHUIS, Secretary.

Among Our Letters

NOTE.—*This department is the open forum of our members. Your communications and discussions are welcomed. Anonymous communications cannot be accepted, though at times names may be omitted by the Editor. Personalities will not be printed and responsibility for opinions is not assumed. We invite your interest in this department. Address: The Editor, Journal, Michigan State Medical Society, Powers Theatre Bldg., Grand Rapids, Mich.*

January 14th, 1925.

Editor of The Journal:

You may be interested in publishing some of the details regarding the death of Dr. John Hunter of Sydney, Australia, who, with Dr. N. D. Royle, came to America at the invitation of Dr. William J. Mayo and Dr. Franklin H. Martin to deliver the John B. Murphy Oration in Surgery at the meeting of the Clinical Congress of the American College of Surgeons, held in New York, October 20, 1924. The work of Dr. Hunter and Dr. Royle in connection with spastic paralysis created unusual interest among the surgeons, orthopedists and neurologists of the world.

After the New York meeting, Dr. Hunter went to London, and the following letter from Dr. G. Elliot Smith, Professor of Anatomy, University of London, University College, gives the details of Dr. Hunter's visit in London, of his illness, and of his death:

"December 16, 1924.

Dear Dr. Franklin Martin:

In reply to your cablegram which has just reached me, I can tell you in a few words of the little there is to say about the terrible tragedy of poor Hunter's death. He arrived in London on 22nd November, apparently in exceptionally good health and full of energy. He threw himself at once into the business of demonstrating his work to the Physiologists and Clinicians in London, and gave a number of Lectures, and was going to start a more formal course on 8th December. On 3rd December he went to Cambridge, and was very busy there with informal discussions as well as Public Lectures. He returned to London on 6th December because he was not well. On the following day, 7th December, it was found that he had a temperature of 104.6 and I got our best physician, Dr. Charles Bolton, to see him, and he sent him into hospital suffering from the most virulent form of enteric that Dr. Bolton had ever seen. His temperature remained at about 105 until the 10th December, when signs of cardiac failure showed themselves, and he died on that day. He was delirious a good part of the time and almost unceasingly talked about his experimental work. It appears that he had been ill from 1st December, but took no notice of it; as he was so absorbed in the task of convincing people here the truth of his results that he went about six days after the onset of the illness without realizing that he was seriously ill. He must have got the infection soon

after leaving Quebec on 14th November. The whole business is unspeakably tragic, because he was certainly the most promising anatomist that we had, and I feel convinced that if he had been spared, he would have been perhaps the biggest figure in Scientific Medicine of the present generation.

Yours very truly,
(Signed) G. ELLIOT SMITH,
Professor of Anatomy."

Amplified biographical sketches of Dr. Hunter may be found in the December 20th issues of The Lancet of London, and The British Medical Journal.

FRANKLIN H. MARTIN,
Director-General.

Editor of The Journal:

In spite of the fact that diphtheria is absolutely preventable, there were 438 deaths from, and 5516 cases of this disease in Michigan during the first eleven months of 1924. Although toxin-antitoxin and Schick material have been available free of charge for over two years, comparatively few immunizations have been done, and some method whereby all the children of the state can receive protection must be devised without further delay.

The Michigan Department of Health is beginning a diphtheria protection campaign, and we are planning to urge the immunization of children of school, and pre-school age throughout the state. Educational literature, posters, and newspaper articles are being prepared, which, together with toxin-antitoxin will be available without cost. Lecturers will stress diphtheria protection, and our staff will include a field unit who will administer toxin-antitoxin.

We do not wish to interfere with the private practice of any physician, and in localities where the medical profession prefer to handle the matter themselves, toxin-antitoxin will not be given by members of this department. However, I am sure that you will agree with us in believing that the diphtheria situation demands prompt, organized effort both on the part of public health officials, and the medical profession. Therefore an expression of opinion from the members of the St. Joseph County Medical Society is earnestly requested. Do the members of the Society object to the free administration of toxin-antitoxin to the children of St. Joseph county by physicians from the Michigan Department of Health? If your members do object to this work being done by the state health department, will your Society sponsor, and organize local immunization campaigns, to be general and at public expense? In either case we shall, of course, be glad to give any assistance we can.

May I ask you to consider this vitally important matter at once, and may I request your co-operation in our efforts to make diphtheria in Michigan a disease of ancient history?

Yours very truly,
R. M. Olin, M. D.,
Commissioner.

To Diphtheria Patients and Their Relatives:

We are sorry to learn that you have diphtheria, and we know that you do not wish your friends and acquaintances to contract this disease.

Won't you help us make people realize that diphtheria is absolutely preventable? TOXIN-ANTITOXIN given at three weekly intervals renders nearly every one incapable of becoming ill with diphtheria.

Please discuss this matter with your physician or the local health department, and as soon as you have been released from quarantine please try to persuade your friends to protect themselves and their children.

With your assistance diphtheria can be made a disease of ancient history in Michigan.

Yours very truly,
R. M. Olin, M. D.,
Commissioner.

DIPHTHERIA PREVENTION UNIT

Personnel—Lecturer and organizer: Dr. Poole.
Preschool organizer: Miss Nash.
Preventive Clinic: Dr. Rose, Miss Canfield.

Selection of Counties

Counties which it is desired to immunize will be chosen on a basis of their previous diphtheria incidence and mortality.

County medical societies will be circularized first and asked directly whether or not they object to work being done by the unit in the county.

If the physicians do not object, county school commissioners, county co-operating health committees, public health nurses and individual physicians will next be circularized.

Plan of Operation

Dr. Poole will first visit the county. He will perform the following duties:

1. Lectures.
2. Visits to—
   Physicians.
   School commissioners and superintendents.
   Co-operating committee chairman.
   Public health nurses.
3. Choice of some one individual who will be responsible for the Prevention Unit work locally.
4. Tentative choice of townships and villages to be immunized.

From this department, posters, pamphlets and permission slips will be sent to each locality chosen. The distributing of this material will be taken care of locally. The local newspaper will be furnished advance stories by the Bureau of Education. Motion picture films will be available for loan.

Miss Nash will visit the county ten days before the Clinic proper. She will verify the arrangements made by Dr. Poole and make sure that the local people who are sponsoring the Unit have made all the necessary arrangements, including the distribution and return of permission slips. She will then make as many house to house calls as possible, urging parents to bring children of pre-school age to the clinic.

The Clinic proper will remain in one county for three weeks, working from Monday until Friday, and making the two necessary return trips to each community the following two weeks. They will finish two more counties before returning to county number one, allowing an interval of six weeks to elapse, when the children in all three counties will be Schick tested. Those found positive will be taken care of locally. To complete three counties, twelve weeks will be necessary.

Nashville, Mich., January 5th, 1925.

To the Editor The Journal:

I wish to call your attention to an error in the last Journal.

In the deceased list I notice the name of Francis Shilling of this place.

Dr. Shilling is not dead, but on the contrary, very much alive. On the 7th of last April he suffered an attack of hemiplagia, from which he is recovering.

Yours very truly,
E. T. Morris, M. D.

Editor of the Journal of The Michigan State Medical Society:

A medical friend of mine has just called my attention to an article in your publication as of January, 1925, giving the name of Francis F. Shilling of Nashville, Mich., as a deceased member.

While Dr. Shilling was stricken with an apoplexy stroke over a year ago and is still confined to his bed, he is gradually showing improvement.

While it is doubtful whether he will ever practice again, I believe it would be a good thing to have the statement corrected that he has actually died.

Yours very truly,
W. V. Bowers.

CAPITAL PUNISHMENT

Editor of The Journal of The Michigan State Medical Society:

Unless my limited acquaintance with history has been misleading, a grave danger confronts society for which legislators, lenient courts which permit miscarriage of justice, and mawkish sentimentalism which condones to much of crime on the score of mental defect, will be responsible.

Time was when the hands of a peasant poacher were cut off if he trapped a rabbit. From this brutal conception of *punishment* for crime, the pendulum has swung to the other extreme, thanks to the sob-squad, to the deluded "optimist" who, through habit expression recites "All's well with the world" as a truth, to the propagandist of crime as disease, to those of convolutionless brains who supply criminals with flowers, and to others who criticize drastic action on the part of the police in the protection of the public.

No relief need be expected from the results of such emotionalism until the individual members of the above groups find (as they will) their own lives and property in jeopardy. So long as banditry is largely confined to banks, mail cars and gas stations, and hold-ups are mainly of those ostentatiously displaying wealth, the poor "sick man" and irresponsible defective will find safe shelter behind the skirts of the soulful, and in preachment of crime as disease and the criminal as a suffering and pity-inspiring personality will continue.

However, banditry bids fair to become general and not confined to those easy objects. The exemplars of Good-Will Limited (to criminals) will also suffer and find themselves victimized by their meticulously coddled protegees. What then will happen to "uplift"? Revulsion of feeling may carry this so-called "civilization" back to the medieval, barbaric, when off will go the hands of the petty thief and fagots, not flowers, surround the "slick man." "Impossible!" you exclaim. Not so. Given sufficient provocation and reaction will inevitably follow. "Superiority" and "enlightenment" are mere words.

The remedy? Speeding up the wheels of justice; swift, common-sense application of effective law; elimination of technicalities in judicial procedure; extermination of the deliberate murderer. Personally, I favor hanging, lethal gas, or electrocution for the bandit who, flourishing a gun, threatens robbery. At least, I would leave such sentence optional with the court. We cannot spare one honorable bank employe, one conscientious taxi-cab driver, one fair-minded policeman. The lives of a score of highwaymen weighed in the balance against one of these well-intentioned citizens, would be found wanting. Remove from earth the deliberate murderer as well as the potential murderer who practices the stick-em-up game. Dispose of them relentlessly as vermin. They cumber the ground and are a constant moral and financial liability.

The example of Great Britain and Canada that execute brazen criminals expeditiously and have as a consequence an infinitely small fraction of crime as compared with the United States, is plain and convincing.

My contention is that high crime is not adequately met in Michigan. Quick extermination of deliberate murderers would solve the problem. Eliminate these, not for the sake of revenge, not as examples, not as a deterrent necessarily, but for the salvage of the tattered fragments of good order. Expediency has been lulled to sleep by the exponents of slushy sentimentality. Much stress is very justly and properly laid upon training the young to righteous living, but no organized and determined effort is made to save for coming generations the framework of a social structure now being wrecked by adolescent and mature criminals.

It is my sincere conviction that continued extenuation on one score and another will, when crime becomes acute and intolerable to dreaming exponents of sweetness and light, result in a whirlwind rage of persecution and injustice. Undisciplined emotionalism unaccompanied by good judgment, will carry them far in such direction.

The biennial agitation of the subject of restoring so-called "capital punishment" is now on. The profession of medicine has the clear and unmistakable duty to assist in crystalizing public sentiment in favor of such legislation—to the end that the proposed referendum may be fruitful of good to a vice-and-crime-burdened state.

Yours truly,
C. B. Burr.

Flint, Mich., January 14, 1925.

January 16th, 1925.

Postscript to my communication of January 14th.

To illustrate how shockingly inured and adjusted the public has become to the present carnival of crime, witness the editorial in this morning's Free Press, calling attention to the outgiving of a Justice of the Supreme Court of Massachusetts to the effect that murder having "become an everyday occurrence, the public would be better off if it was treated like an every-day happening." Philosophically, as a tactful man accepts a badly cooked dinner without complaint?

Yours truly,
C. B. Burr.

AS "AN EVERY DAY HAPPENING"

In the course of a discussion in the Independent of the way in which he thinks homicide cases ought to be handled by the newspapers, Judge William Cushing Wait of the Massachusetts Supreme Judicial Court says that since murder has become an every day occurrence, the public would be better off "if it were treated like an every day happening." In other words, the judge suggests that because it is prevalent, murder ought to be considered incidental, a matter of no particular importance, and something which is of small interest to society. His view seems to be that the greater the evil, the less its significance.

According to this reasoning, if an epidemic of virulent disease invades a community, the newspapers ought to grow more and more indifferent, the more uncontrolled its ravages become; and as the number of traffic casualties increase, the less the people should be told about them and warned of the peril in which they live. Carrying the judge's method of reasoning into the political world, the more common corruption becomes among public officials, the less the recorders of conditions and events should trouble themselves to recite the facts to the voters of the nation. If sufficiently common, bribery should be treated as "an every day happening," and ignored.

It seems to us that Judge Wait's theory is rather

absurd. It is true, he attempts to justify it in its immediate application by insisting that no one need fear that the courts will treat murder lightly "or will fail to hasten in every proper way, the disposition of indictments." But unfortunately, human experience does not indicate that the courts can be universally trusted to do anything of the sort if the public does not maintain a pretty lively scrutiny of their doings. Beside this, the fight against the plague of murder in America by no means depends exclusively on the courts. The peace agencies of various sorts have a primary and exceedingly vital part in the effort to keep down crime and apprehend criminals, and there is nothing which keeps a police force on its toes as efficaciously as does a knowledge that it is being watched, and that the public is going to know when it does well or when it does badly.

State News Notes

COLLECTIONS

Physicians' Bills and Hospital Accounts collected anywhere in Michigan. H. C. VanAken, Lawyer, 309 Post Building, Battle Creek, Michigan. Reference any Bank in Battle Creek.

NURSES' private home, invites convalescents and invalids; best of care, fine location. R. Rs. N. Y. C. and Interurban; best of references given. For particulars write Bessie Bileth, 566 Ely Street, Allegan, Mich.

WANTED: Salaried Appointments for Class A Physicians in all branches of the Medical Profession. Let us put you in touch with the best man for your opening. Our nation-wide connections enable us to give superior service. Aznoe's National Physicians' Exchange, 30 North Michigan, Chicago. Established 1896. Member The Chicago Association of Commerce.

A PRACTICAL course in Standardized Physiotherapy, under auspices of Biophysical Research Dept. of Victor X-Ray Corporation, is now available to physicians. Offers a highly practical knowledge of all the fundamental principles that go to make up the standards of modern scientific physiotherapeutic work. Course requires one week's time. For further information apply to J. F. Wainwright, Registrar, 236 So. Robey St., Chicago, Ill.

FOR SALE—Attention, medical graduate, doctor or surgeon. The surgical instruments, medicines, operating and office furniture of the late Dr. F. J. Lee may be purchased complete at a very reasonable figure. S. George Graves, special administrator, Young & Chaffee Furn. Co., Grand Rapids, Michigan.

UNUSUAL OPPORTUNITY for Physician—Lively town of 1,500 has but one doctor, nearby towns of same size support four to five. Doctor wishing to step into first class practice, investigate this. Good office available. For full particulars write, N. A. Weess, Secretary Exchange Club, Evart, Michigan.

WAYNE COUNTY MEDICAL SOCIETY

The Society has been particularly fortunate in that 1924-25 has shown a decided enthusiasm on the part of its members towards the lecture schedule. The attendance has been more than encouraging, the lecturers more than interesting, and the ensuing discussions fully taken part in.

On Monday evening, February 9th, at 8:30 p. m., Dr. A. J. Pacini of Chicago, is to address the members on Diatherma and Ultra Violet Light. Truly an anticipated pleasure.

Dr. Pacini needs no introduction to the medical and allied professions of Wayne county and Michigan. He is a young man with a veteran's record. Born in New York city in 1890, he has won the Sternberg Medal of the Army Medical School, the American X-ray Society Leonard Prize; he is a chemist, and has contributed much to scientific literature on such subjects as Ultra Violet Light and X-ray Physics and Treatment. During the World War he was in the Surgeon's General's office and had charge of the X-ray department.

Dr. Pacini has a wide knowledge of French, German, Italian, Spanish and English literature; he is a fascinating and witty speaker (in more than one language), he is a master of his chosen specialties, and altogether the Society can congratulate itself on having the privilege of securing a man of his caliber to address the members.

It need hardly be urged that the profession avail itself of this opportunity to hear Dr. Pacini. Members of other scientific societies are already evincing an interest in the forthcoming lecture, and it gives every promise of becoming the event of the current season.

The Annual Clinic Week of the Alumni Association of the Detroit College of Medicine and Surgery will take place June 15-19, 1925. The Commencement exercises take place on the evening of Thursday, June 18th.

The committee is making a special effort to obtain a strong program for the clinics, and has already had several acceptances from visiting men, who will give the noon clinics. Among those who have been invited are:

Dr. William E. Gallie of Toronto, in Surgery.
Roger S. Morris of Cincinnati, in Medicine.
Dr. J. B. Deaver of Philadelphia, in Surgery.
Dr. J. A. Capps of Chicago, in Medicine.
Dr. J. Bentley Squier of New York, in Urology.

Dr. Deaver will also give the Commencement address at the graduating exercises.

The committee is also working up several other special features, which they believe will make this year's Alumni week an unusually interesting and profitable one.

The tentative arrangement of the program is as follows:

Monday, June 15th, at Harper Hospital.
9-11 a. m.—Clinics.
11-1 p. m.—Dr. Jos. A. Capps, Chicago, Medicine.
8 p. m.—Meeting at Wayne County Medical Society.

Tuesday, June 16th, at Grace Hospital.
9-11 a. m.—Clinics.
8 p. m.—Class Reunions. All classes ending in "0" and "5", let your secretary know you're coming.

Wednesday, June 17th, at Providence Hospital.
9-11 a. m.—Clinics.
11-1 p. m.—Dr. J. B. Squier, New York, Urology.
2-4 p. m.—Clinics at the College.
6 p. m.—Subscription dinner and Annual Meeting of the Alumni Association.

Thursday, June 18th, at St. Mary's Hospital.
9-11 a. m.—Clinics.
11-1 p. m.—Dr. Roger S. Morris, Cincinnati, Medicine.
2-4 p. m.—Clinics at Herman Kiefer Hospital.
8 p. m.—Graduation exercises. Address by Dr. Deaver.

Friday, June 19th, at Receiving Hospital.
9-11 a. m.—Clinics.
11-1 p. m.—Dr. John B. Deaver, Philadelphia, Surgery.
8 p. m.—Golf tournament.

After six years of service on the Muskegon City Council, Dr. Geo. L. LeFevre was presented with a desk set on his retirement from office on January 3rd.

Dr. W. T. Dodge of Big Rapids, is spending the winter in Florida.

The Academy of Surgery of Detroit held their first meeting of the year Friday evening, January 9th, at the Jefferson Clinic and Diagnostic Hospital.

The address of the evening was given by Dr. F. N. G. Starr of Toronto on "Appendicitis—So Called." The paper was discussed by Doctors Max Ballin, H. K. Shawan, Paul Eisen and Walter Hackett. Dinner was served at 6:30 p. m. Fifty-seven were present.

Dr. G. Van Amber Brown of Detroit, who has been ill for several weeks with facial erysipelas, has fully recovered again and is attending to his professional duties.

The monthly Practitioners' Clinic was held at the University Hospital on January 13th and was well attended. The principal problems presented were those of carcinoma of the digestive tract.

Dr. Preston M. Hickey of the Roentgenology Department of Ann Arbor, and Dr. Frank D. Dickson of Kansas City, Mo., gave a combined X-ray and Orthopedic Clinic at the meeting of the American Radiological Society at Kansas City last month. At this meeting Dr. Hickey was presented with a gold medal in recognition of his contributions to the science of Roentgenology.

Dr. Robert Gesell of the Department of Physiology of the University Medical School, read a paper entitled, "Experimental Data Relating to the Chemical Regulation of Respiration" before the Federation of American Societies for Experimental Biology, during the recent meeting in Washington, D. C.

Doctors E. E. Nelson and A. G. Young of the Department of Pharmacology, of the University of Michigan, attended the meeting of the Federation of American Biological Societies in Washington last month.

During the past month Dr. John Sundwall, director of the Department of Hygiene and Public Health of the University of Michigan, delivered the following lectures: "The Future Trend of Public Health Activities," before the Genesee County Medical Society at Flint; "Some Important Aspects of Public Health Work" before the County Medical Society at St. Johns; "The Critical Age of Forty" before the Jackson County Medical Society. Dr. Sundwall also presided at the Friday afternoon session of the Conference on Public Health of the Michigan Department of Health at Lansing.

Dr. Sinai of the Department of Hygiene and Public Health, University of Michigan, lectured on "Community Health Problems" at Berkeley, Mich., and at Galien, Mich., last month.

Dr. Harriet Cutler of Korea, graduate of the University of Michigan Medical Class of 1883, spent a few days in the Pathological Laboratory during the last week of December.

The Pathology Department of the University of Michigan entertained Dr. and Mrs. Dick of Chicago during the past month. Dr. Dick, in his lecture on "Scarlet Fever," described the original investigations carried on by himself and Mrs. Dick in isolating a hemolytic streptococcus as the cause of scarlet fever with positive demonstration of its toxine and antitoxine production and the practical application of an immune reaction, the Dick test.

The Department of Pathology, University of Michigan, made the following contributions to the meeting of the American Societies for Experimental Pathology: Paper on "The Experimental Effects of Irradiation on the Cells of Lymphangiomatous Nevi" by Dr. A. S. Warthin; Dr. Ruth Wanstrom read a paper on the study of "Rabbit Spirochaetosis"; a paper by Dr. C. V. Weller on "Experimental Lead Meningoencephalitis" was read December 29th. On December 30th, Dr. Weller presented a paper on the "Spinal Fluid in Cases of Lead Poisoning" before the National Commission for Mental Hygiene and the Study of Nervous Diseases in New York city.

Dr. A. S. Warthin of the Department of Pathology, University of Michigan, attended the meeting of the Board of Regents of the College of Physicians in Philadelphia, December 27th. He also presided as president of the American Association for Experimental Pathology at the meeting in Washington, December 29th to 31st inclusive, and as chairman of the Federation of the Societies of Experimental Biology during the same time.

Dean Hugh Cabot of the medical school spoke on "The Historical Development of Operations for Stone in the Bladder" at the West Amphitheater of the Medical building, giving the first lecture on a course under the auspices of Alpha Omega Alpha, national honorary medical fraternity. This lecture course was instituted by Alpha Omega Alpha to meet a desire of the students in the medical school to learn something about medical history. Under this system a member of the medical faculty gives a lecture each month, in the West Amphitheater. Professors A. S. Warthin, Frederick A. Coller, G. Carl Huber and Albert M. Barrett, all of the Medical School, have promised to speak, and negotiations are under way to obtain several other lecturers.

Dr. J. H. Slattery of Bay City, is spending the winter in Switzerland.

Born to Dr. M. R. Slattery and wife, Bay City, a daughter, on January 4th.

The new Nurses' Home of Hurley Hospital is rapidly nearing completion and will be ready for occupancy about March 1st, 1925. It is one of the finest, if not the finest nurses' home in the state.

Dr. Wright, formerly interne at Hurley Hospital, has opened offices at 12th and Detroit streets for the general practice of medicine.

Doctors Robinson and Smeseth, '24, University of Michigan Medical school, are internes at Hurley Hospital.

Dr. Curhan, '24, Tufts Medical School, Bsoton, Mass., is an interne at Hurley Hospital.

Doctors Nagle and Curtin of the Flint Board of Health were recently made members of the Genesee County Medical Society.

Our Society Business and Activities

HARVEY GEORGE SMITH

EXECUTIVE SECRETARY

NOTE: This Department will each month contain a discussion and report of our Society work and planed activities. Your interest and correspondence as to your problems is solicited.

INGHAM COUNTY MEDICAL SOCIETY INITIATES PROGRAM FOR 1925

The Ingham County Medical Society is out for accomplishing big things for the medical profession within its territory. On a two day margin of notification sixty-five members out of a membership of ninety-nine were present at a noon-day luncheon. The Secretary learned that members of the State Medical Society were or could be in the county and immediately got busy. The officers were consulted and arrangements were made within a few hours for a meeting. The following snappy notice went out to the membership in the next morning mail. Here is the way it was written:

"The Ingham County Medical Society will meet for luncheon Friday noon, January 9th, 1925, in the Hotel Downey grill.

"Mr. Harvey George Smith of Grand Rapids, who is the newly appointed Field Secretary for the State Medical Society, and Dr. Warnshuis, the General Secretary of the State Medical Society, will be with us.

"A large attendance is desired, as these men are anxious to meet our members and also have some interesting information for us.

"Let's let them know that Ingham Society is a live one, and every one be present.

"Horace L. French, Secretary."

The spirit of this notice prevailed throughout the meeting. Luncheon was served promptly and the program was conducted in like manner. The meeting adjourned according to schedule, at one-fifty, permitting the physicians to all be back in their offices with the exception of six loyal doctors who had driven in from near-by towns.

The president, with pointed remarks opened the meeting, conducted the necessary business and then called on the speaker present. (Many regrets were expressed that Dr. Warnshuis had not been able to arrange his time so as to be present.) Dr. Davey, who was not on the program, was asked to give a report on what had been accomplished by the State Legislative Committee to date. And the result of the meeting was this: the chairman of the program committee asked the membership to come forward with suggestions as to what it wanted for the 1925 program. The Secretary said we are ready to do our best, but we need every member behind this Society for action. And after the meeting the president and the secretary said that the Society had plans in mind for the program which included a monthly luncheon meeting, with live singing and talks, social meetings, and a number of programs consisting in talks on sociology, psychology, finance and other subjects all of which were as vital in the life of the community.

This sounds like progress and is taking a new step in making a County Medical Society effective for the profession, by service for the membership and indirectly for the community. And all through the period while the physicians were gathering for the meeting, during the meeting and after the meeting an atmosphere of action, of friendship, of life was markedly present. What County will be next to take on this new program and enter the field of organized activity?

ROLL YOUR PILLS INTO DYNAMOS

The program of the County Medical Society is the mainspring of the organization. The program is what the Society actually sees in relief. It is the representation of thought and energy and interest and enthusiasm of the membership through the various offices and committees who have been delegated to the accomplishments of such tasks. It presents to the membership in regular meetings from week to week, from month to month and from year to year, a story of what the profession of each Society has determined that it should represent. It contains no more nor no less than the membership, what the officers and the committees have been willing to put into the Society for the advancement of the science of medicine. It is in fact the culmination of all effort expressed in definite form.

But what are we to understand by program? Is it the meeting together of the membership at regular or irregular intervals to listen to lectures and discussions or various topics by prominent speakers of the local society or a neigboring society? Is it

the meeting together for dinner or luncheon and listening again to some speaker? Is it the discussion of a local problem on the relationship of physicians among themselves? Is this what we are to understand by the word program? Or, is it the scientific program as represented by lectures, discussions, clinics, etc., and in addition a thoughtful development through careful study of the problems and all of the problems that confront the medical profession in each and every cocmmunity. Are not the problems of the relationship of the profession to the laity and vice versa, the problem of giving to the laity a thorough understanding of what the science of medicine represents, the problem that involves the whole community from a social and educational viewpoint and the problem of establishing the authority of scientivc medicine are not all these and many more actually the component parts of the real program that any society must undertake and solve? And such a program will for the general good of the physicians include lectures not only on the scientific subjects for the advancement of each member of the societies, but in addition lectures on psychology, sociology, finance education history, and many others. Then the program will be broad, will have depth and will at all times adjust and bring understanding and progress to the science of medicine in each and every community and in each society.

By including in the word program this broad understanding and by bringing and giving to each society the hearty, earnest and thoughtful effort of each member the relief map of each society will be an attainment of merit when the year 1925 comes to a close.

What can each member do individually to the support of such a program? First of all, give your unqualified support, even though you may not agree with all the various parts and details. Give of your time, thought, energy and wisdom for the interest you yourself have in your profession, for your fellow practitioner and for establishing a so-called solid front in your own profession and science. Give these not only for your own profession, but in service to your community, your neighbor, your friends, and your fellow workers in the great profession of humanity itself. Roll your pills into dynamos of human service.

Friendship is the practical foundation upon which are, or should, be built all Society activities. When the human race first made a definite step in advance ages ago, it did so when it learned to gather together in groups for the purpose of learning how to work in harmony. The group is the first record we have of accomplishments of any kind, in war, in society, in peace and in religion. The group was the point of contact for each member. It was the place where he made his contribution by action, by thought and by deed. And likewise, it was the place where he received information, learning, wisdom and the understanding of how to work with his fellow member.

There is a woeful lack in the world today of friendship. We have wives and husbands, sisters and brothers; we have partners, associates, colleagues, mentors and advisors, educators, governors and statesmen, but there is a dearth of friends.

Friendship is that quality which takes all, gives all and endures all. It is more priceless than love, more enduring than most of our human qualities. A good friend is the sine qua non of all good qualities in mankind. Love is a passion, a flare, a flame. Friendship is a gentle warmth, a glow, a guiding light. It is the expression of understanding. If there was more friendship in the home there would be less divorce. If there was more friendship in business, in industry and in all our economic and political relations, there would be no strikes, no distressing upheavals and we would pay out less in taxes. If there existed more friendships among nations there would be less war. Diplomacy is a false synonym for friendship. Nations trained in friendship need no diplomacy.

Likewise, friendship is necessary to the medical profession. When your patient is "your friend," you have attained two distinctions—that of confidence and attraction. When you have the friendship of your colleagues you make them partners in your profession. The qualities of friendship are universal. They are the same all over, in all parts of the world and in all human relationships.

One of the principal aims of the Michigan State Medical Society is to cultivate friendships. This cultivation is the natural result of contact, of the rubbing of shoulders and calling each other by their first and not their adopted names. There is no miracle in medicine that requires its practitioners to be strangers. In fact, quite to the contrary, the profession requires a contact that in itself is a culture for friendship.

Because your neighboring doctor may know more or less than you do, is no reason why you cannot be friends. The chances are that each of you hay have what the other fellow needs. Friendship has been the base of all human progress. Let it be the same in your profession.

County Society News

WAYNE COUNTY

To detail the activities of the Wayne County Medical Society for 1924 would require far more space than can be given in the bounds of this communication; but mention might be made of a few general things that have marked the year in its passing.

Under the capable leadership of Dr. Frank A. Kelly in the spring, and of Dr. Wm. J. Stapleton, Jr., in the past fall, the weekly Monday night meetings have swung along, leaving much of practical and scientific profit in their wake. Individual mention of speakers in evenings of uniform excellence is impossible, but sufficeth to say that the range of medicine and its allied branches was covered regionally from "Headaches," discussed by Dr. Hugh Patrick of Chicago, to the X-ray study of pelvic pathology by Dr. Reuben Petersen of the University of Michigan; and geographically, the speakers listed from Dr. Roland E. Skeel of Los Angeles, to Doctors Heyd and MacNeal of the New York post graduate school, the latter having delivered the third series of lectures of the Beaumont Foundation on "Physiological, Pathological and Clinical Problems of the Liver." We were also fortunate in the visit of two distinguished foreigners, Professor A. Biedl of Prague, and Professor Oskar Frankl of Vienna. The varying attendance at these meetings ranged from two hundred to five hundred, the capacity of our aduitorium, which was taxed at most of the meetings. In addition to clinical evenings, a number of highly pleasurable affairs were arranged by the entertainment committee with the primary end in view of furthering good fellowship among the members.

The excellent work of the cancer committee was particularly concentrated on "Cancer Week" from February 17 to 21, 1924, during which period open house was held at all hospitals for free examinations of patients. Eleven hundred persons were surveyed and forty-two proven and previously undiscovered cancers were diagnosed. In addition to this a series of radio talks and well attended public lectures by Dr. A. J. Ochsner of Chicago served to further disseminate the popular knowledge of cancer among the laity and pamphlets relative to the subject were distributed by mail to every member of the Society.

The Public Education Committee, now serving as an integral part of the State Joint Committee, reached, through the medium of seventy-six popular lectures on medical subjects, in Wayne County a total of forty-seven thousand with six hundred and twenty average attendance per lecture.

The weekly Bulletin, under the able editorship of Doctors W. G. Martin and Wm. S. Reveno, has taken on a new form and augmented size and with it an increased popularity and scope of usefulness.

Although there was no concerted membership drive, eighty-seven new members were enrolled, bringing our total to thirteen hundred twenty-eight, the fourth largest of any local medical society in the world.

Legislative activities consisted primarily in the definite stand of the Society taken against the Abrams' method and Spector-Chrome Therapy, making indulgence in either of these fads incompatible with membership.

Owing to the plans for the probable removal of the home of the Society to another site it was thought wise to accept the invitation of the city to house our volumes in a branch of the Detroit Public Library, to be known as the Medical Science Department, with the care and furtherance of its upkeep to be left in their hands. This move has proven to be justified, as the library has been well handled and constantly kept up to date by the addition of the latest valuable contributions to medical literature.

In the belief that the Medical Society of Wayne County has fulfilled to the best of its ability its obligation to the lay and medical community, this report is respectfully submitted.

Very truly yours,

Richard M. McKean.

GENESEE COUNTY

Genesee County Medical Society met at Hurley Hospital, June 16th, 1924.

Speaker, Dr. John O. Polak, Professor of Obstetrics and Gynecology, Long Island College Hospital, Brooklyn, N. Y. His subject was: "The Relationship of Obstetrics to Gynecological Problems."

Genesee County Medical Society met for noon lncheon at Hotel Dresden, Flint, Michigan, September 17th, 1924.

Speaker, Dr. Norman Miller, Assistant Professor of Obstetrics and Gynecology, University of Michigan Medical School. His subject was, "Cranial and Intra-Cranial Injuries to the New Born."

Genesee County Medical Society met for noon luncheon at Hotel Dresden, Flint, Mich., October 1st, 1924.

Speaker, Mr. J. Basil Hume, F. R. C. S., London, England. His subject was "Gall Stones."

Genesee County Medical Society met for noon luncheon at Hotel Dresden, Flint, Mich., October 15th, 1924.

Speaker, Dr. George R. Hermann, Instructor in Medicine, University of Michigan Medical School. His subject was, "The Bedside Treatment of Heart Disease."

Genesee County Medical Society met for noon luncheon at Hotel Dresden. This was the annual meeting and the election of officers of the Society took place for the year 1924-1925, with the result as follows:

President, A. A. Patterson.
Vice-President, F. A. Reeder.
Secretary, G. J. Curry.
Treasurer, W. W. Stephenson.
Delegates: H. Stewart, H. Cook, C. Moll.
Alternates: M. S. Knapp, J. G. R. Manwaring, J. Benson.
Medico-Legal Officer, C. H. O'Niel.
New Member of Board of Directors, W. Winchester.

The speaker was Dr. Theophile Klingman, Department of Neurology, St. Joseph's Mercy Hospital, Ann Arbor, Michigan. His subject was, "Neurological Significance of Early Diagnosis of Pernicious Anemia."

Genesee County Medical Society met for noon luncheon at Hotel Dresden, November 12, 1924.

The speaker was Dr. J. Sundwall, Prefessor of Hygiene and Public Health, University of Michigan Medical School, and his subject was, "The Trend of Preventive Medicine."

Genesee County Medical Society met for noon luncheon at Hotel Dresden, November 26th, 1924.

Speaker, Dr. Hadley, Assistant Professor of Bacteriology, University of Michigan Medical School. His subject was, "The Bacteriophage."

Genesee County Medical Society met for noon luncheon, December 12th, 1924, at Hotel Dresden.

Speaker, Dr. George Youmans, Instructor in Medical Department, University of Michigan Medical school. His subject was, "Achylia Gastrica."

Genesee County Medical Society met for noon luncheon at Hotel Dresden, January 7th, 1925.

Speaker, Dr. J. G. R. Manwaring, Flint, Mich. His subject was, "European Surgery."

HOUGHTON COUNTY

Hancock, Mich., January 7th, 1925.

The Houghton County Medical Society held its regular monthly meeting at the Miscowaubik Club, Calumet, at 8:30 p. m., with 13 members present. The matter of increasing the dues, owing to the fact that the state dues have been increased to ten dollars, was taken up. A motion by Dr. Bourland, seconded by Dr. Roche that the dues be $15,00, was passed.

The first number on the program was a paper and presentation of a case of Coronary Occlusion, by Dr. P. D. Bourland, chief of the Calumet & Hecla Hospital. The next number was a paper on "The Treatment of Asthma by the Removal of its Pathology," by Dr. Frank Walters of Houghton. This paper was the result of Dr. Walters' personal experience with bronchial asthma and treatment of same by physiotherapy and X-ray treatment. Both of these papers were fully discussed by those present, and both were interesting and very instructive papers. Dr. Bourland also presented a case of exfoliation of the skin of almost the entire body, showing specimens of same.

The annual election of officers was next in order, and the following were the results:

President, Dr. I. D. Stern, Houghton.

Vice-President, Dr. A. C. Roche, Calumet.

Secretary-Treasurer, Dr. G. C. Stewart, Hancock.

Censor for three years, Dr. A. D. Aldrich, Houghton.

Delegate to State Convention, Dr. C. E. Rowe, Hubbell.

Alternate Delegate, Dr. J. B. Quick, Calumet.

The applications for membership of Dr. E. A. Bicknell of the C. & H. staff, and Dr. W. H. Ellis of the Quincy staff, were received, Dr. Ellis being transferred from the Marquette-Alger County Society.

The report of the Secretary-Treasurer for the year 1924 shows the total number of meetings, 12; total attendance, 181, with average attendance of 15 per meeting; 2 members have been removed by death during the past year; 1 member removed from district; total of paid up members, 39; total receipts, $576.95; total disbursements, $480.80; balance in treasury, $96.15.

The Society then adjourned to lunch.

P. S.—It is the intention of the Secretary of the Houghton County Medical Society to co-operate in every way possible to make the year 1925 a successful one. I would appreciate it very much if you would furnish me with a list of available speakers for some of our meetings. Any suggestions or help which you or the Executive-Secretary see fit to give will be very much appreciated.

I shall send Dr. Walters' paper to you for publication in The Journal, as I consider it a very well written and instructive paper.

Yours very truly,

G. C. Stewart, M. D.,
Secretary.

MECOSTA COUNTY

The annual meeting of the Mecosta County Medical Society took place Friday evening, December 19th, 1924, at Big Rapids. In spite of the severe turn taken by the weather, the attendance was excellent and the outside speakers came. The company was entertained by Dr. J. B. Campbell and Dr. Glenn Grieve, hosts at a four-score feast served at Burch's cafe.

The officers elected for the coming year are all new except Donald MacIntyre, who holds over. Dr. G. H. Yeo was chosen president; Dr. B. L. Franklin of Remus, first vice-president; Dr. M. L. Teeple of Morley, second vice-president; Dr. Donald Mac-Intyre, secretary-treasurer; Dr. L. E. Kelsey of Lakeview was named delegate to the State Medical Society meeting, with Dr. J. L. Burkart as alternate. Dr. G. H. Lynch was selected for medico-legal advisor.

George Harvey Smith of Grand Rapids came up. He is Executive Secretary of the State Medical Society. Mr. Smith talked on the proposed activities of the State Medical Association for 1925. Dr. F. Courrier, also from Grand Rapids, spoke (with illustrations) on reflexes, deep and superficial. Dr. W. Northrup, a third man from Grand Rapids, gave an illustrated talk on the heart. Dr. C. F. Pryor, one of the dentists of the city, who were guests on this occasion, contributed the review of a case of naomi.

BARRY COUNTY

At the December meeting of the Barry County Medical Society the following officers were elected:

Dr. C. P. Lathrop, Hastings, President.

Dr. R. W. Griswold, Freeport, Vice-President.

Dr. A. W. Woodburne, Hastings, Secretary-Treasurer.

Dr. E. T. Morris, Nashville, Delegate to State Meeting.

Dr. C. K. Brown, Nashville, Alternate.

Dr. B. C. Swift, Middleville, Medico-Legal Advisor.

In place of holding a meeting here in January, our Society was invited to visit the Sunshine T. B. Sanitarium at Grand Rapids on January 9th. Nine of our fellows went up and Dr. Nesbitt gave us a splendid clinic from 3 to 6 p. m., followed by a dinner, and those who went felt that it was a unique and very profitable way to hold a Medical Society Meeting for a change.

Yours most sincerely,

A. W. Woodburne.

JACKSON COUNTY

The year of 1924 has been one of the most successful years the Jackson County Medical Society has ever enjoyed. There was a total of 72 who paid their dues, this being the largest mailing list we have ever had. The meetings were well attended and the programs were excellent. The spring and fall clinics were decidedly successful from the standpoint of the patients themselves and the doctors who attended.

A brief resume of the activities of the Society follows:

January 26, 1924—Pig hocks and sauerkraut dinner at Hayes Wheel Club, Round Lake. This was a social get-together meeting and no scientific program or business was transacted.

February 15, 1924—Dr. A. J. Ochsner, Chicago, Ill., President of American College of Surgeons. Subject, "Osteomyelitis." Physicians of Washtenaw,

Ingham, Calhoun and Kalamazoo Counties were invited to this meeting.

March 20, 1924—Dr. Fred Coller, Assistant Professor of Surgery, University of Michigan. Subject, "Diseases of Thyroid Gland." Dr. Deacon, Director of Bureau of Vital Statistics. Subject, "Result of Goiter Surgery in Michigan."

April 23, 1924—Dr. Max Burnell, Flint, Mich. Subject, "Intracranial Injury at Childbirth."

May 27, 1924—Spring Clinic Day—Dr. Wm. Omstead, Assistant Professor of Medicine, Washington University. Director of Metabolism Unit, Barns. Hospital, St. Louis, Mo.

Program as follows:

8:30-10 a. m.—Ward rounds Foote Hospital.

10:30-12 a. m.—Ward rounds Mercy Hospital.

2:00 p. m.—Clinic at Foote Hospital. "Diabetes and Diseases of the Kidney."

8:00 p. m.—Foote Hospital.

Paper and demonstration of food values. This was very successful, with a large attendance and plenty of good clinic material.

June 26, 1924—Annual picnic at Clark's Lake.

October 16, 1924—Dr. Max Peet, University of Michigan. Subject, "Neurological Surgery."

November 18-19, 1924—Fall Clinic. Program as follows:

November 18th, at Foote Hospital.

9 a. m.—Dr. Plinn F. Morse of Detroit Clinic, In Internal Medicine.

1:30 p. m.—Dr. A. L. Jacoby of Detroit, Clinic in Neurology.

3:30 p. m.—Dr. Udo J. Wile of Ann Arbor, Clinic in Dermatology.

November 19th, at Mercy Hospital.

9 a. m.—Dr. Howard Cummings of Ann Arbor, Clinic in Gynecology.

2 p. m.—Dr. Rockwell Kempton of Saginaw, Clinic in Pediatrics.

6 p. m.—Dinner—stag—Guild House.

7 p. m.—Dr. Carl Eberbach of Ann Arbor, "Infections of the Kidney."

December 17, 1924—Election of officers and transaction of general business at 4 p. m.

7 p. m.—Dinner, dance at Jackson City Club. Speaker, Dr. John Sundwall, Professor of Hygiene of University of Michigan. Subject, "The Critical Age of 40."

Officers for 1925:

Dr. J. C. Hicks, President.

Dr. Harold Hurley, Vice-President.

Dr. L. J. Harris, Treasurer.

Dr. D. F. Kudner, Secretary.

Dr. D. F. Kudner,
Secretary.

CALHOUN COUNTY

The forty-eighth annual meeting of the Calhoun County Medical Society was called to order by President Haynes in the Bridge room of the Post Tavern at 5 p. m., December 2nd, 1924.

Dr. W. H. Haughey moved that the minutes of the preceding meeting be approved as printed in the Bulletin. Seconded by Dr. Gorsline and carried.

Dr. Gorsline called attention to an error in addition in the Treasurer's report. Total receipts should have been read $1,287.00 instead of $1,297.00, and cash on hand should have read $533.69 instead of $543.69. Dr. Gorsline moved that the report of the Secretary-Treasurer be approved as corrected. Seconded and carried.

Nominations were called for the office of president, and Dr. Wilfrid Haughey placed in nomination, Dr. A. F. Kingsley. There being no further nominations, Dr. Gorsline moved that the nominations be closed, the rules be suspended and the Secretary cast the unanimous ballot of the Society for Dr. Kingsley for president. Supported and carried unanimously. The Secretary cast 20 ballots and Dr. Kingsley was declared elected president.

Nominations were called for the office of Vice-President. Dr. Gesner nominated Dr. L. S. Hodges of Tekonsha, and Dr. Gallagher nominated Dr. James Elliot. There being no further nominations Doctors Church and Gesner were appointed tellers. The tellers reported 24 ballots cast, with 17 ballots for Dr. Elliott. Dr. Elliot was declared elected Vice-President.

Nominations were called for the office of Secretary-Treasurer. Dr. A. F. Kingsley nominated Dr. T. L. Squier. Dr. George Hafford moved that the nominations be closed, the rules suspended and that the President cast the unanimous ballot of the Society for Dr. Squier for Secretary-Treasurer. Supported and carried. The President cast 24 ballots, and declared Dr. Squier elected Secretary-Treasurer.

Nominations were now in order for Delegates to the State Society. Dr. W. H. Haughey nominated Doctors Gorsline and George Hafford. Supported by Dr. Sleight. Dr. Kingsley moved that the nominations be closed, the rules suspended and the Secretary cast the unanimous vote of the Society for Doctors Gorsline and Hafford. The Secretary cast 24 ballots, and declared Doctors Gorsline and Hafford elected Delegates to the State Society.

Dr. Gesner nominated Dr. Wilfrid Haughey and Dr. S. K. Church Alternate Delegates. Dr. Gesner moved that the nominations be closed, the rules suspended and the Secretary instructed to cast the unanimous ballot of the Society for Doctors Wilfrid Haughey and Church. Supported and carried. The Secretary cast 24 ballots and declared Doctors Wilfrid Haughey and Church elected Alternate Delegates.

Dr. Haynes addressed the Society, following which Dr. Kingsley took the chair. Dr. W. H. Haughey moved that Article 1, Section 1, of the Constitution be amended to read:

Applications for membership shall be made in writing to the Secretary of the Society, and shall be submitted by him to the Board of Directors thereof, who shall investigate the elegibility of each applicant and shall report their findings to the Society. All elections for membership shall be by open ballot, or by a yea or nay vote, and a four-fifths majority of those present shall be necessary for election. Each applicant, when elected, shall sign the By-Laws and agree to conform to the same, and to the Code of Ethics of the American Medical Association, and shall also pay his dues in advance at the rate of $15.00 per year, $10.00 of which shall be dues to the Michigan State Medical Society, for the then fiscal year, before he shall be entitled to the privileges of the Society."

The amendment was presented at the preceding meeting and published in the Bulletin. Supported by Dr. Cooper and unanimously carried.

The Secretary read the following bills: Phoenix Printing Co., $16.00; Dr. Squier, mailing Bulletin, $1.51. The bills having been approved by the members of the Board of Directors, Dr. Rosenfeld moved that the bills be paid. Supported by Dr. Kolvoord and carried.

Applications for membership were given the second reading from the following: Frank E. Leslie, John J. Harrington, Thomas G. McLin, J. W. Wills and Franklin Johnson.

All applications having been approved by the Board of Directors, Dr. Gorsline moved that the rules be suspended and the Secretary instructed to cast the unanimous ballot of the Society for Doctors Leslie, Harrington, McLin, Wills, and Johnson for membership. The Secretary cast 25 ballots, and declared the doctors named elected to membership.

Applications for membership from Doctors Evelyn O. Nielson, W. H. Nielson and W. H. Snyder were read and referred to the Board of Directors.

There being no further new business, Dr. George Hafford introduced the speaker, Dr. Grover C. Penberthy of Detroit, who discussed in a very interesting manner, "Infections of the Hand and Their Surgical Treatment." Discussion was opened by Dr. Brainard, followed by Doctors Gorsline, Kingsley, Hafford and Church. Dr. Kingsley moved that a vote of thanks be given Dr. Penberthy for his interesting talk. Supported and carried.

The meeting then adjourned to the dining room, where the members were joined by their ladies at a banquet.

Following the banquet Mr. A. L. Miller gave a very enjoyable talk on the development of ethics in journalism. The meeting then adjourned to the Bridge room, where the balance of the evening was spent in dancing. Attendance at the meeting, 25; at the banquet, 85.

GOGEBIC COUNTY

I wish to submit the following report, which is really a report for two months:

The regular monthly meeting of the Gogebic County Medical Society which was to have been held in the new Town Hall at Ramsay, on December 12, 1924, was indefinitely postponed, owing to the practically impassable condition of the roads, due to the unusually severe snowstorms of a few days previous.

A special meeting of the Gogebic County Medical Society was held at the Olcott school at Bessemer, Mich., December 15, 1924, at 8 p. m. This meeting was called for the purpose of making plans for suggestions to be submitted to the County Board of Supervisors, relative to using a part of Grand View hospital at Ironwood, as a general hospital. After expressions of the various members present of their respective opinions as to the feasibility of the plans discussed, a committee was appointed by the chair consisting of Doctors O'Brien, Houghten, Larson, and they to draw up resolutions to be presented to the Board of Supervisors embodying the opinions voiced by the members present at this meeting. A special meeting was decided upon to be held as soon as this committee had its report ready.

The regular monthly meeting of the Gogebic County Medical Society was held at the Elks' Club, Ironwood, at 8:30 p. m. It was decided to combine the regular monthly meeting with the special meeting which was to be held for the purpose of hearing from the committee appointed on December 15, regarding the use of a portion of Grand View hospital at Ironwood as a general hospital. This action was taken in view of the extremely uncertain weather conditions prevailing in this section at present. Briefly, the recommendations made by the committee were that the second floor of the present hospital be used as a general hospital, that a training school for nurses be established in connection with the hospital, that an interne be secured, and that these things in addition to equipping the operating room and securing a motor ambulance, would be all that would be necessary in making the hospital suitable as a general hospital. It was unanimously decided that the Secretary send a copy of the communication drawn up by the special committee to the Chairman of the County Board of Supervisors.

Dr. Stebbins, of Ironwood, read an interesting paper on the subject of "Feet."

The special committee appointed by the President for the purpose of investigating the right of a certain optometrist in Ironwood to calling himself "doctor," made its report. The committee was given additional time to continue its work.

It was decided that the County Society dues for the coming year be $1.00, in addition to the State dues of $10.00.

The next meeting is to be held at the County Sanitarium on February 13, papers to be given by Doctors Draper and Dorpat, of Ironwood.

I would be glad to know, Doctor, whether a report is to be sent in for a month during which no regular meeting has been held.

M. J. LIBERTHAL, Secretary-Treasurer.

BERRIEN COUNTY

In the last number of The Journal of the Michigan State Medical Society on Page 59, "Our Deceased Members," I note that there was no mention of the death of Dr. F. L. Sharrer of Benton Harbor, which occurred on May 24, 1924. Dr. Sharrer was second vice-president of the Berrien County Medical Association and so also a member of the State Society.

At the meeting of the Berrien County Medical Society held in Niles at the time of the Post-Graduate Medical Conference the following officers were elected:

President, R. N. Dunnington, D. D., Benton Harbor, 1st vice-president, Abby Henderson, M. D., Niles; 2nd vice-president, R. B. Howard, M. D., Benton Harbor; secretary-treasurer, H. O. Westervelt, M. D., Benton Harbor; delegate to the State Society, Robert Henderson, Niles; alternate, Robert H. Snowden, M. D., Buchanan.

I am sending you this report as I do not know as the new Secretary has notified you of the changes.

Yours Fraternally,

R, B. HOWARD.

OAKLAND COUNTY

I am sending you a report of our annual meeting and two new members, annual meeting held at Board of Commerce, Nontiac, Michigan, December 30, 1924.

Officers for year, 1925: Dr. N. B. Colvin, president, Pontiac, Mich.; Dr. I. H. Neff, vice-president, Birmingham, Mich.; Dr. L. F. Cobb, secretary, Pontiac, Mich.; Dr. M. B. Mitchell, treasurer, Pontiac, Mich.; directors, Dr. R. Y. Ferguson, Dr. A. C. Murtha, Pontiac, Mich.; Dr. J. S. Morrison, Royal Oak, Mich; delegate to State convention, Dr. F. B. Gerls, Pontiac, Mich.; alternate, Dr. F. B. Mercer, Pontiac, Mich.

A library committee was appointed for the purpose of establishing a medical library as a part of the Pontiac City library. Applications of Dr.

George Alexander, Pontiac, and Dr. Charles Long, also of Pontiac, Mich.

Both applications had been passed upon by the Board of Directors, and were accepted by the Society.

Motion made and passed that Oakland County extend a vote of confidence in Dr. Warnshuis, a committee of three was appointed to confer with the local Visiting Nurses association on matters of ethics. Meeting adjourned.

I can see no reason why you cannot count on us to a man, we're with you and will give all possible help from this part of the State.

LEON F. COBB, Secretary.

MUSKEGON COUNTY

The Muskegon County Medical Society held its annual meeting the evening of December 19th. Following the disposition of routine business, the members listened to an excellent paper on Caesarian Section, by Dr. G. J. Hartman. The paper was freely discussed.

The meeting was adjourned after the election of the following officers:

President, Dr. R. I. Busard, Muskegon; vice-president, Dr. C. J. Durham, Muskegon; secretary-treasurer, Dr. P. S. Wilson, Muskegon Heights; delegate, Dr. F. W. Garber, Sr., Muskegon; alternate, Dr. S. A. Jackson, Muskegon; medico-legal advisor, Dr. G. L. LeFevvre, Muskegon.

P. S. WILSON, Secretary.

CLINTON COUNTY

I am herewith submitting the names of new members of the Clinton County Medical Society elected at its annual meeting held at the Masonic Temple on Nov. 2, 1924. The officers are:

President, Dr. W. M. Taylor, Ovid, Mich.; vice-president, Dr. F. E. Luton, St. Johns, Mich.; secretary-treasurer, Dr. T. Y. Ho., St. Johns, Mich.; chairman program committee, Dr. A. O. Hart, St. Johns, Mich.

THOS Y. HO, Secretary-Treasurer.

INGHAM COUNTY

The annual meeting of the Ingham County Medical Society for the year 1924, held at Hotel Downey, December 19, 1924, at 4:30 p. m., was called to order by Dr. McIntyre. The minutes of the last meeting were read and approved.

The following Committee Reports were presented to the Society:

1. Executive Committee—No report.

2. Program Committee—Dr. Shaw gave a very complete report on the activities of the Society during the past year, which included 19 scientific programs, a dinner dance, and the annual picnic. Several joint meetings were held with the County Bar Association and the Dental Society. Dr. Shaw recommended the encouragement of the reading of papers by our own members and also that the program committee be allowed a reasonable amount to pay the expenses of outside speakers. He also recommended that occasionally during the year, some of the best known doctors of the country be invited to address our Society.

A motion was made and supported that the report of the Program Committee be accepted. Motion carried.

3. Entertainment Committee—No report.

4. Medico-Legal Committee—No report.

5. Legislative Committee—Dr. Davey gave a short oral report in which he mentioned the likelihood of legislation pertaining to the chiropractors, in the present session of the legislature. He strongly advised each member of the Society to get in touch with their state senator or representative, and use their influence to the fullest extent in lining up the men against quack medicine.

6. Public Health Committee—No formal report was given, but Dr. Olin mentioned the fact that 43 chiropractors had been prosecuted in the past year.

7. Welfare Committee—No report.

8. Committee on Ethics—No report.

9. Advisory Committee—No report.

10. State Medical Library Committee—Dr. A. F. Owen, as Secretary of the Committee, read a report in which he described the establishment of the library and also read a list of one hundred current periodicals which had been subscribed to and placed in the library. Dr. Owen emphasized the good fortune which had befallen the Ingham County Medical Society in having the benefits of a library of this type. He also requested that each member submit a list of books, which he will donate to the library, to the Secretary of the Society, who will in turn place the list in the hands of the library committee. It was also requested that the library committee be made a permanent affair. The library at present is open from 8 a. m. to 5 p. m. and negotiations are being made whereby it will be open evenings.

A motion was made by Dr. A. E. Owen and supported by Dr. Davey that the Society vote its thanks to Dr. Olin and the Health Department for their work in making the medical library possible and that resolutions of appreciation be drafted and forwarded to Dr. Olin. Motion carried.

11. Report of Special Finance Committee—A report was read by Dr. Milton Shaw in which he outlined the previous expenditures of the Society and drew a comparison with what they would be for the year 1925. He announced that the fee for each member to be paid to the State Society had been increased to ten dollars and for this reason, and also because of the increasing size of the society, he recommended that the dues be increased to twenty dollars per year.

A motion was made by Dr. Karl Brucker and supported by Dr. Galbraith that the report of the special Finance Committee be accepted. Carried.

Election of New Members—The petitions of Dr. J. J. Henderson of Fowlerville, Mich., and Dr. C. D. Sargeant of Lansing, Mich., were submitted for vote.

A motion was made by Dr. Toles that the petitions be accepted and the applicants admitted to membership. Motion carried.

Treasurer's Report—Dr. Wershow read the report of the Treasurer and exhibited a schematic chart showing the various amounts expended during the year.

A motion was made that the report be accepted. Motion carried.

Election of Officers for 1925—A motion was made that Dr. Wight be given the unanimous vote of the Society for President. Motion carried.

Vice-President—Nominations:

1. Dr. Fred Seger.
2. Dr. Wm. McNamara.
3. Dr. Barthalomew.

A motion was made that the nominations be closed. Carried. Result of ballot:

Dr. Seger .....21 votes
Dr. McNamara ..... 5 votes
Dr. Barthalomew .....15 votes

Secretary-Treasurer—Nominations:

1. Dr. Horace L. French.

A motion was made by Dr. Milton Shaw and supported by Dr. DeVries that the nominations be closed and the Secretary instructed to cast a unanimous ballot for Dr. French. Motion carried.

Delegates—Unanimous ballots were cast for the following delegates:

1. Dr. Davies.
2. Dr. Toles.

Alternates.

1. Dr. Bruegel.
2. Dr. Osborn.

Medico-Legal Member.

1. Dr. Barthalomew.

A motion was made and supported that the meeting be adjourned. Motion carried.

Horace L. French,
Secretary.

December 19, 1924.

The Ingham County Medical Society held its annual banquet December 19, 1924, at 7 p. m., in the main dining room of the Hotel Downey. The banquet room was attractively decorated through the genius and work of Mrs. DeVries, assisted by Mrs. McIntyre and Mrs. Welch. The cuisine was excellent and thoroughly enjoyed by every one present.

During the banquet a very enjoyable musical program was given by the Gefranzon Trio.

After the banquet the retiring president, acting as toastmaster for the evening, introduced himself and gave the President's address. Dr. McIntyre outlined the work that had been done by the Society during the year and made several recommendations for the future work of the Society.

The newly elected officers were then called upon and a short talk was given by each, following their introduction to the Society.

The next number was some selections by the Ingham County Medical Choral Onions, with Dr. Drolette acting in the capacity of choir master.

Mrs. Drolette next gave a very interesting talk concerning "Some Doctors I Have Known." Needless to say, the crowd indulged in many good laughs at the expense of the doctors who were fortunate enough to come within Mrs. Drolette's scope of acquaintance.

The alumni of the University of Michigan who were present were next very tactfully brought into the limelight and under the direction of Dr. Harold Miller, executed several Michigan songs.

"Some Patients I Have Known," was the subject presented by Dr. Osborn, who was next on the program, and provided genuine amusement for those present. We could easily see that Dr. Osborn is an ardent disciple of Dr. Fishbein and his tonics and sedatives.

Two songs by Mrs. Joseph W. Stack, with Mrs. Weinburgh accompanying, came next and were greatly enjoyed and appreciated.

Dr. Green of Hillsdale, the Councilor for the Second District, was next introduced and gave a short talk.

The main speaker of the occasion was the Hon. Gilbert A. Currie of Midland, Mich., who gave a very interesting talk on "Modern Chemistry and Its Relation to Medicine." Mr. Gilbert is connected with the Daw Chemical Company of Midland, and was able to give us some very good information concerning commercial chemistry.

Mr. Currie's talk concluded the program and every one felt that the 1924 annual banquet had been a great success.

Horace L. French,
Secretary.

THE ANNUAL REPORT OF THE PRESIDENT AND SECRETARY OF THE INGHAM COUNTY MEDICAL SOCIETY FOR THE YEAR 1924

The Ingham County Medical Society closes it year of 1924 with a feeling that it has enjoyed a fairly active and instructive year. Our membership has grown in numbers, which now should be also converted into a potential force for the good of the Society and the local profession.

Membership Report—

Active members at the beginning of the year, 74.

New members admitted during 1924, 16, making a total of 90..

Honorary or life members, 2.

Members lost through death during 1924, 4.

Lost for non-payment of dues, 2.

Lost through transfer or removal, 3.

Program—We were very fortunate in having a Chairman of the Program Committee who was active and efficient. Through his efforts we averaged better than two meetings per month. We had some excellent presentations of papers and clinical demonstrations, as well as original experimental work. The program was varied, of practical importance and very instructive.

A complete list of the entire program is printed on the leaflet which you will find at the banquet table.

We had sixteen scientific meetings and three scientific programs combined with the dentists, and one joint meeting with the lawyers.

Combined Meetings—The joint scientific meetings with the other professions, such as the dental profession, the legal profession, and other scientific organizations, brings us in closer touch and better understanding between the members of the several professions. During the past year we had three very instructive and interesting meetings with the dental group of this district. These meetings were well attended by both groups.

We also had a successful meeting and dinner with the lawyers, at which time Dr. Barret of Ann Arbor presented a very remarkable discussion of the "Behavior Problem," which was of mutual as well as general interest.

Last February, through the informal interests and efforts of a committee of ladies, headed by Mrs. McIntyre, the doctors, dentists and druggists enjoyed a social evening at the Country Club. This affair was in the nature of a dinner-dance. There was a large attendance from the three professions. From all indications it met with very favorable criticism. These social evenings are conducive to a better fellowship and closer feeling among the several professions whose interests and ideals are somewhat similar. It is hoped that similar social evenings may be held in the future and properly supported.

Annual Picnic—This was held this year late in September. We were fortunate in having an ideal

day for the event. We had a fairly good turn-out for the steak roast and all arrangements were carried out smoothly. However, this annual function should be staged early in the summer, when weather conditions are more stable.

Through the interruption of the small pox epidemic we had to forego the pleasure of an invitation for a joint picnic with the lawyers at Judge Wiest's farm.

Civic and Public Health Activities—

State Department of Health—Ingham County is unusually fortunate to be situated in close proximity to the State Board of Health Laboratories. The officers of the State Board of Health are to be commended for their co-operation and interest in helping the practitioner with the laboratory phase of diagnosis, practically without any fee. We urge that every member avail himself of the laboratories and thereby improve the character of his work, and co-operate with the State Board of Health in their problems. The Society as a unit has appreciated the value and co-operation of the Health Department.

Library—Another feature of the State Health Department is the medical library. The department has designated its intention to co-operate with the County Society in starting a collection of medical books and periodicals. This effort should be encouraged and supported by each member. It would certainly be a great convenience for our members to have an adequate collection of medical literature to be used as a reference library. If properly utilized it would greatly enhance our work. The County Society should appropriate an annual substantial sum from its budget towards the library. One hundred dollars a year would not be too much. In this connection it may be suggested that many of our own members donate some of their personal library or bequeath their personal collections to this library. In other words, remember this library in your will.

Small Pox Epidemic—On the occasion of the small pox epidemic the Society and its individual members responded to the call of health officers and gave of their time in checking the epidemic.

Cancer Week—The Ingham County Medical Society, through its appointed committees, has taken an active interest in the problem of cancer control. During Cancer Week free cancer clinics were held daily under the auspices of the Society. Newspaper publicity was utilized in advertising the clinics. The clinics were well attended and managed. In this work Sparrow Hospital furnished the necessary assistance. Seventy-nine patients were seen in the clinics during the week.

The State Society—The annual state meeting was held at Mt. Clemens. There were a number of Ingham County men there, but far too few, considering the value of the wonderful papers presented at the meeting. This year's meeting offered a wonderful program of scientific papers on many important problems. The state meeting is probably the most important event in the life of the medical profession and should be attended by every progressive physician. The County Society could do a great deal in encouraging its membership to attend. A special committee on attendance could be appointed and this committee should canvass the individual members and organize automobile parties who could travel together.

The annual meetings are stimulating and instructive and tend to maintain one's interest in the ethical and scientific aspect of the practice.

Defense Day—Along with the other civic organizations the Society participated in the National Defense Day exercises.

Rotary Clinic—The Society accepted the invitation of the Rotary Club to conduct the Orthopedic and Neurolic clinic. This clinic was held at the Sparrow Hospital, Dr. Kidner from Detroit conducting the orthopedic clinic, and Dr. Clingman from Ann Arbor conducting the neurolic clinic, the members of the Society assisting. In fact, we think the Medical Society should have received more credit than was given it. The members of our Society, we believe, did the bulk of the work. All cases were thoroughly worked up and complete histories taken of the cases before they were turned over to the visiting physicians, who acted more in the capacity of consultants.

Co-operation of the Hospitals—The two local hospitals have been unusually eager to extend the facilities of the hospitals to the County Society. We held one scientific meeting at Sparrow Hospital and a number of meetings at St. Lawrence. The hospitals are excellent places for such meetings, inasmuch as we can utilize equipment, such as the X-ray, stage clinics or demonstrate any clinical procedure or laboratory test. Both hospitals should be given a vote of thanks by the Society for their splendid co-operation and generous hospitality. It was the aim of the Secretary to divide the meetings between the two hospitals, but unfortunately Sparrow Hospital has but very limited facilities and quite inadequate for our meetings, even if we have only 50 per cent of our membership in attendance. St. Lawrence Hospital planned their building wisely, having a room that is especially adapted to our needs. This room is sufficiently large to accommodate practically our entire membership. The Sisters have left nothing undone to make our meetings pleasant and complete.

Meeting Places—However, the Society has had to meet at various places; the Elks Club, Kerns Hotel, Downey Hotel and the State Department of Health. Therefore it is our opinion that an organization of this size with a growing membership should make some effort to furnish some permanent meeting place, properly equipped for the needs of the Society. In this place the library could be housed for the convenience of the members. There are many societies that have their own quarters. In several cities the medical academies have a large room in the city public library for the convenience of the medical profession. The library keeps the books properly catalogued and the room is only open to registered physicians. It may be possible for our Society to exert its efforts in this direction. We might say in passing that this would be a wonderful opportunity for some wealthy and philanthropically inclined citizen or citizens to perform a great and lasting service, not only to the medical profession of today, but to the younger physicians who will follow us. A permanent place of this kind would greatly facilitate our work.

Before leaving the subject of hospitals we wish to emphasize the fact that in our opinion the public has not been sufficiently informed concerning the new obstetrical departments of our two hospitals. We believe it to be the duty of every physician to practice what he believes about asepsis. We believe that every uterus that is opened by mechanical means or by nature is a major operation and that the mother and baby should have the advantages of hospitalization with all the modern facilities contained therein. In other words, the general surgeon who operated ten years ago in the home, believes it is now unwise to open an abdomen unless in the well equipped operating room of the hospital, why should we expect the mother to risk not only her own life, but that of her baby, under less favorable conditions? It is up to you,

Mr. Doctor, to urge and encourage your maternity patients to take advantage of the hospital.

Newspapers—At this time we wish to express our thanks to the State Journal and the Capital News for their hearty co-operation in giving us publicity, not only to our meetings and the report of same, but the various articles that have appeared in their columns that were of mutual benefit and service to the physicians and the public.

Also, we have arranged with the heads of the Sparrow and St. Lawrence Hospitals to render a free telephone exchange and information service for the convenience of the members of the Society and their patients. This service is to be rendered on Sundays and holidays when the physicians' offices are closed and there is no one at the residence to answer the phones. This service will be available from 8 a. m. until 8 p. m., and any information the physicians wishes given, i. e., if he is to be out of the city, time of his return, or any physicians designated to attend his patients, this or any other service possible will be rendered by the attendant of the telephone at either hospital.

Thorough publicity of the above plan has been promised by both newspapers. We would also suggest that each member of the Society keep his patients informed of this plan, as by so doing he will be rendering a service to both his patients and himself.

Clinical Clubs—Back in 1909 the Ingham County Medical Society did not boast so large a membership and the meetings were ofttimes few and far between, therefore we members of the city organized an auxillary of the County Society that was known as the Lansing Clinical Club. Each member of this club in turn prepared a paper based on an interesting case that had at some time occurred in his practice. These papers were discussed and created a great deal of interest due to the fact that they were not obsolete cases or those occurring in distant localities, but those actually occurring in Lansing and vicinity. This club, due to some reason unknown to the writer, was eventually discontinued, but we are pleased to state that during the past year a new club has been formed which is also an auxillary of the Medical Society with practically the same purposes and ideals of the old Lansing Clinical Club. The new club is known as the Study Club, and due to the active and enthusiastic co-operation of its members, has produced some wonderfully prepared and intelligently discussed papers, some of which, in our opinion, should be presented as often as possible to the entire Society.

We also recommend that a monthly or quarterly bulletin be printed by the Society, same to be edited and published by a committee appointed by the President and known as the Editorial Committee. This bulletin should publish the work of the Medical Society and Study Club, which would be very instructive to our members, especially to the county members outside of Lansing, who are unable to attend every meeting.

Attendance—Our average attendance for most of our meetings has been very poor, considering the membership of 100 we hardly averaged 30 per cent attendance. A few of our meetings were attended by as many as 40, but at most of the meetings there were but 25 or 30. This lack of interest is deplorable. Our scientific programs are designed for the busy practitioner who finds it difficult and costly to get away to study at some distant clinics. Our programs are in the nature of a post-graduate course for the enlightenment of our membership. It is usually scheduled at such time as will least conflict with our practice. They are held sufficiently infrequent as not to be boresome. It seems that our meetings, by virtue of being scientific and instructive, could command priority over all other meetings or interests, since they are aimed to make us better physicians. The strangest part of it all is the fact that those who attend regularly and show the greatest interest in the programs are those who do get away to other places and do post-graduate work. There are many members in our Society who have never attended a single meeting during the entire year. They have simply paid their dues and nothing more.

The Society should impose some obligations upon its passive members in return for the prestige which membership in this Society implies. It should stand for something more than mere payment of dues. In our opinion some rule should be adopted whereby a member is automatically suspended who shows a persistent lack of interest in the advancement of the profession and the fellowship of his colleagues. Every member should cultivate the spirit of give and take.

On the other hand, we believe also that the Medical Society owes a duty to its individual members, a duty which should be faithfully discharged. For example, in the not too distant past there have been several of our members who have had some friction with the hospitals. Now then, instead of taking a passive attitude and letting these misunderstandings, you may call them, go by default, uncorrected, let us encourage our members to bring their troubles, or problems, if you please, to the attention of the officers or executive committee of this Society, and give him, as well as his opponent, a fair and impartial hearing. If he is guilty he should be disciplined. If not, he should receive the unanimous support of this Society to correct the existing conditions. In other words, we believe that we owe our members more than an overstuffed diet of brain food in the form of scientific papers and discussions. Don't lose sight of the fact that the physician has a body and soul as well as other people, and that in his daily practice he has problems to solve other than scientific ones. We also believe that it is high time that the honest patient should not be obliged to pay the doctor bills of the professional deadbeat, because, irrespective of the moral side of the question as to whether it is right or wrong, we maintain that it is not necessary, due to the fact that our charitable organizations are well established. We have a full time city and county physician, free clinics, of which the staff of both hospitals, which are made up of our members, give freely of their services without one penny of remuneration. Therefore we believe that if we establish a central clearing house or bureau and turn in all unpaid doctors' bills to this bureau, we could soon eliminate the professional deadbeat, or drive him into the line of charitable medical services where he belongs. This, gentlemen, we believe is only fair to the honest patient and his physician.

Conclusion—In conclusion we wish to express to the chairman and members of our committees and to each individual member of this Society, our deep appreciation and gratitude for their diligent service, hearty co-operation and loyal support given this administration. We thank you.

J. Earl McIntyre, M. D.,
President.

Max Wershow, M. D.,
Secretary.

Lansing, Mich., Dec. 19, 1924.

Among the Books

A Review and Frank Appraisal of Medical Books That are Proffered to the Profession by Publishers.

OPERATIVE SURGERY—Vol. IV., final volume, by Warren Stone Bickham, M. D., F. A. C. S. In six octavo volumes, 5,400 pages, 6,318 illustrations, and Desk Index Volume. Cloth, $10. W. B. Saunders Company, Philadelphia.

This is the final volume of a system that becomes a standard work on surgery. It presents modern surgery, surgical diagnosis and pathology in the full light of our present knowledge. In surgical treatment and operative technic it is thorough, clear and accurate. The illustrations are pertinent and enhance the text. We know of no other so complete a text while at the same time serving so satisfactorily as a reference and consultant. The entire system is a credit to the author, publisher and American surgery.

CHLORIN IN RESPIRATORY DISEASES

When the announcement first appeared in The Journal, last March, that Vedder and Sawyer of the Army Medical Corps had been able to devise a method for administering chlorin, in the treatment of respiratory diseases, which seemed to have a distinctly beneficial effect in this class of ailments, it was received with exceptional interest. This interest was stimulated, no doubt, by the fact that high officials of our government, including even the President of the United States, had submitted to treatment by this method and had expressed satisfaction with the results. Immediately, individual physicians, as well as hospitals and health departments, undertook to test chlorin administration on a large scale, with a view to establishing finally its actual adequacy. In New York City, Health Commissioner Monaghan established two clinics under the direction of Dr. L. I. Harris, in charge of the Bureau of Preventable Diseases. These clinics began active work, June 1, and continued until August 1. The results of the experiment have just been made available through the health bulletin of the Department of Health of the City of New York. According to the report, only 6.5 per cent of 506 persons with various respiratory diseases reported themselves as cured, in contrast to 71.4 per cent of 931 persons reported cured in the original paper of Doctors Vedder and Sawyer. Fifty-three per cent of the patients treated by the New York clinics reported improvement, but the physicians in charge do not attach much importance to such reports, since it is well known that patients with minor respiratory infections tend to improve, within certain limitations, by the very nature of such diseases. As is mentioned, the report of the New York investigators concerns only acute cases, and the conclusion is that in such instances at least the claims are unjustified. Much has been said of the use of the method in whooping cough, but eighteen cases of this disease studied with twelve controls failed to show any appreciable advantage of the chlorin method of treatment over that previously used. The method was without apparent benefit in asthma and in hay-fever; indeed, three patients with asthma became decidedly worse under treatment. The results of this controlled investigation are, therefore, such as to depreciate definitely the claims originally made for the method by the Army medical investigators. The physician is confronted with a situation in which the original investigators, whose work seems to have been conducted in a scientific manner, report excellent results which other investigators working independently have failed to confirm. Obviously, the results of numerous investigations being made elsewhere must also be brought to light before any opinion is warranted as to the future of this method of treating disease. Certainly the individual physician who purchases such apparatus and uses it in his practice must do so with the distinct understanding that he is using an unestablished method.—Jour. A. M. A., Dec. 6, 1924.

HELIOTHERAPY IN THE TREATMENT OF GENITO-URINARY TUBERCULOSIS

Nelson A. Myll, Denver (Journal A. M. A., Dec. 6, 1924), holds that genito-urinary tuberculosis, like bone, joint and other complications of general tuberculosis, is a local manifestation of generalized tuberculosis, and that treatment, to be curative and permanent, must be directed toward the disease, rather than to a local manifestation of the disease. The removal of an epididymis or of a testis, or the draining of a tuberculous prostate cannot, in itself, be curative, even if the local pathologic condition has not all been eradicated. Heliotherapy is the method of treatment carried out in cases of genito-urinary tuberculosis at the hospital, with which Myll is connected. Heliotherapy is begun at once, according to the Rollier method. The feet and ankles are exposed to the direct sunlight for ten minutes the first day, five minutes anteriorly and five minutes posteriorly. The second day the exposure is increased five minutes both anteriorly and posteriorly half way up to the knees, thus giving a total of twenty minutes' exposure and so on, approximately an equal distance of surface except the head is sunned. The ten minute increase is continued until about two hours' radiation is taken in the summer and three hours in the winter. The total time will vary somewhat with the individual. Particular attention must be paid to exposing the genitals, and the site of the active inflammation must receive direct radiation. The patient wears no clothes while taking the sun. When not sunning, the patient is encouraged to wear as little clothing as possible, to give him the maximum benefit of air baths. If several sunless days occur together, artificial light therapy is substituted. Rest, the one great therapeutic agency, which is of greatest value in the treatment of tuberculosis, is almost ideally procured in this treatment. These patients are in bed practically all the time, and physical relaxation is almost constant. The diet is the regular hospital diet. Since last November Myll has been using, as a routine, the intravenous administration of calcium chlorid, 5 c.c. of a 5 per cent aqueous solution every five days. In all cases in which there was bladder irritation, there was an almost immediate symptomatic improvement. Painful urination was greatly lessened or ceased entirely, probably through the action of calcium chlorid in relaxing the smooth muscle spasm. The only treatment employed is removal of free pus in cases in which the lesion is superficial and easily accessible. Fourteen cases have been treated with heliotherapy; and the results have been uniformly encouraging. In no case has there been an extension of demonstrable disease after treatment has been begun, and in every case except one, this patient being a full blooded Indian, there has been a steady clinical symptomatic improvement after the initial symptomatic aggravation during the first few weeks of treatment. Heliotherapy arrests the progress of pathologic change and seems to promise cure of tuberculosis of the genito-urinary tract.

The Journal
OF THE
Michigan State Medical Society
ISSUED MONTHLY UNDER THE DIRECTION OF THE COUNCIL

Vol. XXIV. GRAND RAPIDS, MICH., MARCH, 1925 No. 3

Original Articles

THE TREATMENT OF ASTHMA BY THE REMOVAL OF ITS PATHOLOGY

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This paper is the outcome of a personal experience and is submitted in the hope that it may carry some helpful suggestions to those who seek release from this most devastating disorder either in themselves or their patients. The treatment which has returned the writer from invalidism to active professional life is so relatively new that much has yet to be worked out in its application to various types of individuals and degrees of pathology. Apart from reports by Dr. C. M. Sampson in U. S. army reconstruction work, case histories are so meagre that the writer may be pardoned for frequently referring to his own.

"Bronchitis with asthma," or "asthmatic bronchitis" are the names that would be given by some writers to all cases which they have not been able to place in the category of allergic or sensitization asthma, and they would limit the term "bronchial asthma" to the latter. The search for the basis of asthma has for some time been directed to the field of allergy and there are many earnest investigators yet who feel that here is to be found the solution, just as previously, focal infections and reflex irritations from various parts of the body were to explain it all; but in neither direction has the asthma problem been solved.

Dr. F. M. Pottenger in "A Discussion of the Etiology of Asthma" (Amer. Jour. Med. Sciences, Feb., 1924), says:

"The idea of sensitization is a great advance in our etiological conception, but it must not be interpreted too narrowly. With present knowledge it surely can not be considered as the only factor active in the production of paroxysms. Some writers are too prone to hold to one cause and exclude all others. Asthma is not so simple as that. It must be approached from a very broad viewpoint. The underlying reacting capacity of the individual's bronchial neuromuscular mechanism must be taken into consideration as well as the exciting cause."

Again, from an abstract of the findings of Harry L. Huber and Karl K. Koessler, "The Pathology of Bronchial Asthma," (Arch. Int. Med., Dec. 15th, 1922):

"A study of the bacterial type of asthma shows the mistake of considering all cases of bronchial asthma as a manifestation of allergy. The exudate produced may partially or totally obstruct certain bronchi; or injury to the protecting layer of mucosa may facilitate absorption of toxic substances, stimulating the bronchiolar musculature causing spasm. However, if the poisons are carried to the lungs from distant parts of the body, this type may become allergic."

Now, any congestive process followed by only partial resolution leads to pathological changes in the tissue or organ involved, by whatever incitant the process may have been induced; and the more frequently repeated, the more firmly established is the pathology. This is illustrated in many cases of hay fever. While at first asthma was only a complication of the seasonal disorder, the condition finally becomes a chronic bronchitis with asthma.

The work of Huber and Koessler goes far toward proving that a thoracic pathology is eventually produced in every case of asthma of any considerable standing. Fortunate, indeed, are they in whom the tendency to bronchial spasm and congestion can be eradicated before the process becomes self-perpetuating in the affected region itself. This may sometimes be done by desensitization treatment, by the avoidance of the irritant in food or otherwise, by change of climate, by better hygiene and exercise, by supplying some nutritional, chemical or endocrine requirement, or by eradication of "the reflex arising in any organ or tissue of the body whose afferent nerves are able to mediate with the pulmonary branches of the vagus."

Having failed of success in all the above lines of search for relief in his own case from a prostrating bronchial asthma, the writer turned his attention to the bronchial region itself containing the fons et origo mali—the center acting and not merely acted upon in the production of dyspnea; and he was confirmed therein by the pub-

lication about this time of the Huber and Koessler findings. Numerous X-ray and physical examinations had already been made, whereby tuberculosis was ruled out, though involvement of the hilum lymph nodes and the characteristic peribronchial thickening were demonstrable in the films; but the "pathologic histologic examination of the finer structures of the bronchi and their branches" now finally disposed of the view that asthma was a pure neurosis and suggested "a certain parallelism between the clinical picture and the structural changes," as set forth in the following:

"The outstanding finding in this study is the evidence that the actual thickness of the walls of bronchi and bronchioli of more than 0.2 mm. outside diameter is increased, as compared with similar structures in non-asthmatic persons. This difference is due to increased thickness of all layers from the epithelium to the outer fibrocartilaginous layer. Hyperemia and cellular infiltration of the wall, and increased activity of the glands lead to swelling and thickening and this can produce, mechanically as well as chemically, irritation of the peripheral nerve endings in the tube, which may indirectly cause bronchospasm. The abundant secretion of the epithelium and the hyperactive glands obstruct, in some instances completely, the already narrowed lumen of the middle-sized and small bronchi and the bronchioli. In this way both systems, the exudative and the bronchomuscular, act simultaneously in the production of stenosis, in some instances the one more than the other, but always both to some extent. Even in the purely allergic asthma of the infant 16 months old, which at that age already showed definite abnormal thickening of the bronchial wall, the exudation into the bronchi and bronchioli, with complete obstruction of some, was proof of this combined involvement. These observations make it plain that in man, at least, the allergic reaction of the tissues is not confined to the smooth muscle fibre system, but involves also the whole organ system which serves exudative processes, endothelium, epithelium, capillaries and glands.

"The increased thickness of the wall, the hyperactivity of the glandular system, the bronchoconstriction, as well as the emphysema, are not present to the same degree in all parts of the lungs. The anatomic substrate of the bronchospasm is mainly furnished by the hypertrophy of the smooth muscle fibre system. The evidence of a narrowed lumen and the folding of the epithelium must be interpreted with great care."

Here, then, the futility of all drugs, vaccines, desensitizations, etc., in cases, at least, of any considerable standing. Even a normal bronchial neuromuscular mechanism must inevitably react excessively under the continuous irritation set up by such an ever present pathology. Further, as Dr. Pottenger points out, "The thickened musculature and enlarged mucous glands most probably afford an instance in which anatomical changes result from an over-stimulation of a physiological process, for in asthma the vagus nerve, which stimulates both the musculature and the secretory glands of the bronchi, is in a state of hyper-irritability." So we have the vicious circle complete and need not seek any further for more remote exciting causes.

Of course, this does not dispose of pre-existing hyper-susceptibility which has been variously referred to as "a fundamental instability or a cellular deficiency in the make-up of the asthmatic;" "a congenital insufficiency of the sympathetic nervous system, an unstable vasomotor balance;" "a hypotonia of the sympathetic nervous system resulting in an asthenia of the nerves and the muscles of the respiratory system," or "an instability of the body chemistry which only becomes evident after a certain set of circumstances," etc. In the writer's opinion this whole matter is intimately bound up with the genesis of the common cold. We read in the admonitory advertisements of the Metropolitan Life Insurance Co.: "A cold is an inflammation of the mucous membrane which settles upon the point of least resistance—the nose, throat, chest or gastro-intestinal tract." "To take cold easily is to advertise that your living habits are wrong," etc. But why, we ask, are some individuals more immune than others, though frequently living under worse conditions, and why or what is a point of least resistance? Until the medical profession is able to point out that biochemical status or the thing without which the cold cannot be, and with which it cannot fail to be, any discussion of diminished resistance is merely academic.

In bronchial asthma whatever the first cause, and whether brought over from the parents, started at birth or developed later in life, the vicious circle once established must be dealt with just as certainly as that, say, in traumatic epilepsy, gastro-intestinal symptoms of a chronic appendix or the complications arising from a pathological prostate. The advance of surgery has made successful interference possible in these conditions; we not only know what the trouble is, but how to remove it; and we lose no time with prescribing drugs, injecting vaccines, mental suggestion, diet reform or change of climate, in the expectation of cure.

We cannot invoke the aid of surgery for the asthmatic thorax, but we have in the proper application of the X-ray, diathermia, the mercury-quartz lamp and older forms of electro-therapy, a kind of super-surgery, a finer and more delicate scalpel, which insinuates its way into vital tissues and without any destruction thereof, stimulates the removal of those elements deposited or formed which produce the status asthmaticus; and no longer need it be said: "Once an asthmatic, always an asthmatic."

Dr. C. M. Sampson, formerly of the Physiotherapy Service of the United States army hospitals in Washington, Lakewood, N. J., Staten Island and New York City, had exceptional opportunity during his years of reconstruction work in the army to establish certain new principles and technic in the application of these modalities. The following statement taken down during his lectures is illuminating and pertinent to this whole subject:

"Inflammation is the specific reaction by which nature attempts to prevent, delimit, or repair damage threatened, being inflicted or inflicted in living tissue, regardless of the cause. The reaction is specific because it always occurs; but it is not always successful. Nature is notoriously unable to prevent damage in a multitude of conditions and if the process of repair is delayed beyond a few days, never does clear it up entirely. The inflammation may be adequate, inadequate and hyperacute inadequate. Chronic disease is the result of an inadequate inflammation and is perpetuated by fibrosis; or an inadequate inflammation may result in the death of the part or the death of the host."

The process stressed by Sampson is the seeping out of plasma during venous stasis, acting first as a mechanical obstruction to the circulation; and secondly the organization of the fibrinogen into fine lines of interstitial fibrosis. More or less ischemia follows from the pressure upon blood and lymph channels of the contracting fibrous tissue, with resulting malnutrition of the part and the retention of waste with its deleterious effect, first locally, and then upon the organism as a whole. Under such conditions the tissue is hors de combat; its supply lines being blocked off, it can neither bring up adequate forces against bacterial invasion, remove waste nor repair damage; and the area becomes what he likens to a disease-breeding slough or swamp which can be adequately cleaned out only by flooding it with the health-giving, moving waters of a contiguous flowing stream, and then keeping it flooded. Hence, his three principal modalities—ionizing X-ray, diathermia and static electricity, play the roles of softening, flooding and massaging away this *product of an inadequate inflammatory reaction* to an irritant, whether that irritant was traumatic, biochemical or bacteriological.

Dr. Sampson had to deal with hundreds of chest conditions resulting from gassing at the front, and he told the writer in personal conversation that their bronchial membranes were "burnt out" with the formation of scar tissue from the awful irritation of the gases. Certainly here in these young, previously vigorous and healthy men there can be no question that the asthma had its origin in the chest. In his book, "Physiotherapy Technic," he refers to one man who had been gassed three times with two different gases, and having an average of sixteen severe asthmatic attacks a day, whose attacks dropped to an average of three a night (none in the day) after less than a week's treatment.

"After the first week his gain was slow but perfectly steady. One has but to have closely watched the results of the various combinations of physical remedies in the treatment of a large and variegated series of cases of asthma, bronchitis, functional heart disturbances, pulmonary tuberculosis, etc. following the gassing of the service men, to be convinced of the absolute value of the X-ray when added to other treatment that was proving markedly palliative, but which, without the X-ray, was unable to clear up the causative factors. Cases of gas bronchitis treated with the X-ray alone showed palliation, but little or no real progress. So to the X-ray must be given a large share of the credit for the real improvement that took place in most of these cases treated."

Dr. J. D. Gibson of Denver, Colo., was the first to direct the writer's attention to the curative value of mild dosage of X-ray in chest conditions. Working chiefly with tuberculosis patients, as he has for years, he had but one success to cite with purely bronchial asthma; but as this patient had been starved and dieted along the same lines as the writer, only to relapse similarly until after the local pathology had been directly influenced, the hope of a second success was strong and, as it turned out, justified in his treatment. He gave not only of his time and experience, but turned over the use of his apparatus, so that by his application of the X-ray in combination with diathermia applied by the writer, the pathology was removed.

Doctors Newcomer and Conyers, Denver roentgenologists, gave unstintingly of their services in treatment with high voltage, deep X-ray therapy, and instruction in the technic and rationale of its application, in furtherance of the writer's quest for information and cure. This was at a time when recovery was well advanced, so that no conclusion was reached as to the role played by this type as compared with the longer rays; each, no doubt, have their special field. The whole matter of X-ray therapy in thoracic pathology remains to be standardized. However, a report of a case of mammary carcinoma in a woman who had suffered for years with asthma, was significant. They had rayed this breast nine months before. Not only the neoplasm, but her asthma had been obliterated by the treatment, and had remained so at the time of their report. One of the doctors, while traveling through Nebraska, met a physician who had been in the habit of making periodical visits to a roentgenologist to be fluroscoped. He went in the first place as an aid to diagnosis, because he was a chronic bronchitic; he con-

tinued to go because his bronchitis was always lessened following the fluroscopy.

This instance is similar to that reported by a German roentgenologist, abstracted in an American publication, who had observed striking improvement in the condition of certain tuberculous individuals following a series of special examinations in which they were frequently skiagraphed and fluoroscoped.

Corroborative testimony of the value of the X-ray in thoracic pathology has recently been presented in reports by Dr. Ralph D. Leonard, "Use of the Roentgen Ray in Pertussis", (Amer. Jour. Roentgenology, March 1924); and by Dr. Henry I. Bowditch, "Further Notes on the Treatment of Pertussis by the Roentgen Ray," (Jour. A. M. A., May 3, 1924). Quoting from the latter:

"With the exception of a brief trial in Russia in 1911, the roentgen-ray treatment of whooping-cough seems to have been forgotten. In our present state of knowledge, the justification for its use seems to be based on the same theory as that for its use in bronchitis—the apparent involvement of the hilum lymph nodes in an acute inflammatory hyperplasia—and the action on these glands in reducing their size. This reduction in size is again more theoretical than actually demonstrable, but the successful clinical application makes the use of the roentgen ray rational. In addition to this action on the bronchial lymph nodes there is the possible, theoretical, direct action on the bacteria and on the hematopoietic system in general."

In the discussion following Dr. Leonard's report:

"Dr. H. J. Ullman, Santa Barbara, Cal., asked if Dr. Leonard thinks the effect of the roentgen-ray is primarily on the glands or if there is a possibility that it is analogous to the general effect secured in the treatment of elderly people with bronchial asthma." Dr. Leonard replied: "I feel that the effect of the roentgen ray is perhaps somewhat the same as in the so-called thymus cases. We apparently get some benefit clinically from raying the thymus, the improvement is immediate, but there is no demonstrable change in the size of the thymus. The same with these glands. We irradiate them, there is an immediate effect on the symptoms, but no appreciable change in the glands for some weeks. Now I think there must be some other effect of the roentgen ray besides the direct diminution in the size of the glands. There may be a general effect just as we get in certain types of asthma."

THE VALUE OF THE X-RAY DIAGNOSIS IN GASTRO-INTESTINAL LESIONS

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The diagnosis of gastro-intestinal lesions is more accurate today than ever before, and roentgenology has contributed materially to the increased accuracy in this field. The X-ray shows many lesions very definitely, but fails to detect others. I wish therefore to set forth its advantages and particularly its limitations, so that there may be a better understanding on the part of the clinician as to what he may properly expect from an X-ray gastro-intestinal examination, and also to show the clinician his responsibility in the final summing up of the case.

I wish first of all to set down briefly the usual plan of procedure in an X-ray study of the gastro-intestinal tract. The patient presents himself for examination after having taken a simple enema, and gone without breakfast. Gall-bladder plates are made, with a small cone, and Bucky diaphragm. Following this, a fluoroscopy of the chest and general abdominal inspection with the X-ray is made. A study of the stomach and duodenum with the opaque meal then follows. Patient returns in six hours, when particular attention is given to evacuation of the stomach, study of the small bowel, and progress of the meal. Patient returns for examination at twenty-four, forty-eight and at times seventy-two hour intervals. We may then give a barium enema, if indicated. Of course, there will be necessary variations from this standard formula, as unusual conditions may arise, but in brief the above outline is the usual plan of procedure. The fluoroscopic examination is supplemented by radiograms in varying numbers, as the case demands. It will be seen that it is manifestly impossible to render an opinion as to gastro-intestinal pathology in patients not properly prepared, or who have not the necessary time at their disposal. It is obviously unfair to ask the roentgenologist to report under unfavorable circumstances. I would therefore suggest that if the clinician is not familiar with his roentgenologist's plan of procedure, the patient be sent for instruction, or the plan ascertained beforehand.

The diagnostic possibilities in cases referred for gastro-intestinal study are interesting as they give an idea of what may be expected in this field, and form a basis for certain roentgen conclusions to be given later. Blackford and Dwyer of Seattle, made 1,650 examinations with the X-ray, which were carefully checked up as to final diagnosis, and came to the following conclusions: In any 100 cases presenting themselves for gastro-intestinal X-ray study, 30 will suffer from functional disorders, 20 from general systemic diseases, 3 will remain undiagnosed, while 47 will have organic lesions. Thus nearly half of the cases, 47 per cent, will have lesions theoretically demonstrable by the X-ray. In addition, there is a large number of diseases which will be discovered incidentally. For instance, pulmonary pathology, cardiac enlargement,

aneurysms, lung metastases, renal stones, subphrenic abscesses, spinal metastases from prostatic carcinomas, abdominal tumors, foreign bodies, and various other conditions might be mentioned. Thus there are many lesions capable of detection during the process of a gastro-intestinal examination, although they may be outside of the gastro-intestinal tract. It aids in determining the amount of healing in gastric or duodenal ulcers, by the degree of disappearance of the filling defect, and the approach to normal peristalis. It also checks on the results following gastro-enterostomy. Diverticuli of the small and large bowel, intussusception, pericecal adhesions, chronic conditions of the appendix, incompetent ileo-cecal valve, dilatation of the cecum. adhesions, angulations, tuberculous ulcerations, spastic colitis, malignancy, and bowel obstructions are frequently shown. If cases are carefully gone over before submitting them for X-ray study, we have reason to believe that the percentage of organic lesions found will be higher. We may estimate, then, that the X-ray will give positive evidence of disease, or is capable of giving such evidence, in about 60 per cent of all cases referred for study. There is frequently definite value in the negative findings as well, for they serve to rule out various organic lesions, and thus help to direct attention to possible functional disorders being present. Now, if all cases studied had organic lesions, there would occur in 100 cases, 4 cases of gastric ulcer, 8 cases of gastric carcinoma, 16 of reflex appendicitis, 24 cases of duodenal ulcer, and 48 cases of gall bladder disease. The question naturally arises as to how much dependence may be placed upon the X-ray to properly and correctly interpret these lesions. To quote from Blackford and Dwyer again, the X-ray will in careful and experienced hands, give diagnoses as follows: Esophageal lesions, 98 per cent, (this includes spasm, organic stricture, diverticuli, external pressure, foreign bodies, etc.); gastric ulcer, 86 per cent, without, and 93 per cent with, the use of clinical findings; 98 per cent of cancers of the stomach; 94 per cent duodenal ulcers; 50 per cent gall stones; 50 per cent gall bladder disease (George and Leonard 87 per cent,); 80 per cent carcinoma of the bowel.

I would stress the point that the percentage of correct X-ray diagnoses is in direct proportion to the amount of experience of the roentgenologist and to the pains which he may take in the individual case. It is necessary to make numerous radiograms in conjunction with the fluoroscopic examination and to re-examine the patient where there is a question as to the absolute value of the findings. Here is needed above all else, firm conviction, tempered by a healthy conservatism, and a thorough foundation in the fundamentals of physiology and pathology. The final opinion of the roentgenologist, while based on X-ray findings, instead of clinical symptoms, requires the same amount of individual judgment as in any other field of diagnosis. The results reflect directly back upon the radiologist rather than upon his mechanical equipment.

While the burden of the responsibility for making the X-ray diagnosis falls upon the roentgenologist, still the clinician has frequently been guilty of depending too much upon the X-ray findings, without a thorough understanding of their limitations. He frequently sends the patient to the roentgenologist with only a perfunctory attempt to make the diagnosis. It is, we believe, necessary that a careful history should be taken by the clinician before referring the case, and an honest attempt made to arrive at a diagnosis. Then his opinion will not be swayed too much by any X-ray findings, in case of a disagreement. The necessity for proper correlation of the history, clinical findings, and laboratory findings, is paramount, and in the last analysis, the clinician is the one to make the decision. Common sense, that ability to discriminate between the important and the unimportant, is equally necessary for the clinician as for the roentgenologist. The roentgenologists are frequently to blame because of their desire to fulfill the expectations of the clinician, when the X-ray findings do not warrant a positive conclusion. They depend on clinicians for their livelihood, and it is hard to admit their limitations. They frequently report a lot of trivial details, which are given too much weight by the clinician, who thus arives at erroneous conclusions. One of the most frequent mistakes made by the roentgenologist is in translating his X-ray findings into terms of exact diagnosis, and in fact the clinician is often guilty of forcing the roentgenologist to such a conclusion where his findings warranted merely the assertion that an organic lesion was present.

We have patients coming directly to us, without having consulted another physician, or if so, without his recommendation. We refuse to examine these patients, unless they go to a clinician, because we feel that they are entitled to a complete diagnosis, rather than one based on the X-ray findings alone. It is just as much of a mistake to limit the examination of these cases to the X-ray alone as it is to fail to include it. I would also call attention to the personal element in the X-ray diagnosis. One must tell if shadows are abnormal, and this is difficult because of the infinite number of normal

variations. Again, the abnormal condition may be due to organic pathology or to a functional lesion. One must determine, if possible, the exact nature of the organic lesion, and indeed, this is frequently difficult even for the surgeon or the pathologist to determine by actual inspection of the part. I urge you to remember that an X-ray picture is merely a faithful record of the various densities through which the rays pass from the tube to the film, and that the proper interpretation of these various shadows, determines its real value. Thus an X-ray examination may, in certain hands, lead to faulty conclusions while in another's the correct diagnosis might be given. Incorrect conclusions are usually attributed to the limitations of the X-ray where they are often the fault of interpretation. Adequate technic is vitally necessary to good X-ray diagnosis, and is only too often slighted, resulting in radiographs which even experts could not read. In a busy laboratory it is easy to say in the report, "radiograms show poor quality," and then proceed with the report. The necessity for re-examination and comparison in such cases is obvious, and no compromise with poor films should be allowed. The patient is entitled to the full benefit of the X-ray study and his future health should not be imperilled by faulty technic. It is also obvious that diagnoses should not be accepted from technicians. Carman says, "Roentgenology is for physicians, and should be practiced only by physicians. A technician may make the radiogram, but a thorough grounding in anatomy, physiology and pathology is necessary to properly translate X-ray shadows into reliable diagnostic opinions."

A gastro-intestinal examination is a combination of fluoroscopy and radiography, and it is important that a sufficient amount of time be taken with the fluoroscope, and particularly that a sufficient number of radiographs be made. Nowhere in the whole field of X-ray diagnosis is it so easy to sacrifice time and costly material, and thus do the work more cheaply. A two minute fluoroscopy of the stomach can be made for the price of a radiogram of the finger, but even so would constitute a gross overcharge, in that it would be practically worthless, or even misleading. Proper and adequate gastro-intestinal study with the X-ray is expensive and necessarily so, and any attempt to reduce the cost of materials used is bound to result in inferior diagnostic work.

CONCLUSIONS

Approximately one-half the cases referred for gastro-intestinal study will have organic pathology of this tract. The majority of these can be shown with the X-ray. An additional 10 per cent of organic lesions outside this field will be discovered in the course of the examination, so that the X-ray should give positive evidence in about 60 per cent of cases. Negative findings are frequently of value also.

The X-ray forms a valuable part of every gastro-intestinal study, and materially aids in the diagnosis. It does not supplant an accurate history or physical findings, or any other laboratory aid; it supplements. The proper correlation of all findings is the duty of the clinician, and not the radiologist. The X-ray shows numerous gastro-intestinal lesions beautifully, but has definite limitations, of which the clinician should be aware. The radiologist has a responsibility in doing good technical work; in making a sufficiently extensive study, both by fluoroscopy and radiography, and then to presume no further than his findings actually warrant. The clinician should insist on definite and positive evidence, and should not be influenced too strongly by mere contributory signs and portents. Where positive findings are absent, he should not depend on the X-ray too implicitly. The clinician has a definite responsibility in properly working up the case, for then he can fit the X-ray findings into the final diagnosis.

RETROPHARYNGEAL ABSCESS

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Acute retropharyngeal abscess is a condition that is frequently overlooked, not only by the pedeatrician, but the throat specialist as well. A retropharyngeal abscess though not altogether common, is of sufficient frequency and importance to warrant a thorough knowledge of its manifestations, pathology and treatment.

As the name indicates, a retropharyngeal abscess is a collection of pus between the posterior pharyngeal wall and the cervical vertebrae. There are two types of this abscess, the acute which is the subject of this paper, and the chronic, which is due to cervical caries, usually of tuberculous origin and which will not be dealt with here.

Though a retropharyngeal abscess does occur in later life, it is truly a disease of infancy and childhood. There are definite anatomic and physiologic reasons why this disease does occur more frequently in the early years of life and statistics bear this out.

Brown[1] maintains that 96 per cent of the cases occur in the first six years of life. S. Van Pearsons[2] asserts that only one of his 17 patients was more than two years of age. All of Kopliks[3] 77 patients were less than 10 years of age. Ira Frank[4] reported 70 out of 74 cases

in children under ten years. Brown further states that 50 per cent of the cases in children occured in the last six montths of the first year of infancy.

Some of the very early observers, as Besser[5], Winternitz[6], etc., had recorded that the disease occured in suckling infants and childhood.

I have personally observed ten cases of retropharyngeal abscess with only one in adult life.

A retropharyngeal abscess is usually due to the breaking down of infected or diseased retropharyngeal glands. It is recalled that the early years of life are in the lymphatic age. There is an excessive development of lymphoid tissue everywhere. The tonsils and adenoids show their greatest activity and may increase to relatively enormous size at this time. The lymph glands and channels are hyper-active and sensitive to irritation. The glands are larger in number than at any other period. The thymus also shows its greatest activity during the early years of life. It is this lymphatic development that predisposes the infant to rhinopharyngeal disease in general and retropharyngeal abscess in particular.

Most[7], Baker[8], and others have demonstrated that there is a marked variation between the lymphatic arrangement of the infant and the adult. The glands of the retropharyngeal region are enclosed in a sac and embedded in loose areolar tissue. This sac or space lying in front of the deep precervical muscles extends from the base of the skull to the lowest extremity of the deep cervical fascia.

There are four groups of glands in this area and they arranged vertically, two on each side of the mid line of the pharynx. These lateral groups of glands are of special interest as they are always present in infants and young children. In adult life the lateral groups become atrophic or one group may disappear altogether. Superiorly these lateral glands approximate the internal carotid canal, while inferiorly they are usually hidden behind the posterior pillars of the tonsils.

In addition to the lateral glands there are a group of median glands arranged on both sides close to the mid line of the pharynx, either unilateral or bilateral. In the early years of life, these glands may number from three to ten, while in adult life there are rarely more than one or two.

It has been observed by such workers as Lewandowsky[9], Agnew[10], Delamere, Poirer, P n eo[11], Most[7] and Gray[12] that these retropharyngeal glands receive afferent lymphatic vessels from the accessory sinuses of the nose, the nasal fossae, the pharynx, tongue and larynx. This explains why an acute and chronic infection in these regions can by a continuity of lymphoid tissue reach into the depths of the pharyngeal wall.

In adults the symphtomatology parallels that of an acute quinsy, and the diagnosis is comparatively easy. In the infant the signs are not so clear. In most cases, the abscess has progressed to the stage where deglutition is made difficult or painful before attention is directed to this condition.

In other cases respiration may be interfered with. The variation in symptoms being due to the size and location of the abscesses. The symptoms that were most prominent in my cases were, restlessness and fever. There was something wrong with the child, but no particular symptom gave a definite clue to the disease. One case in my series ran a septic temperature and had marked dyspnea, especially on lying down. The symptoms pointed to a post-nasal obstruction and what seemed a logical step, an adenoid operation was performed. The distress continued, however in unabated manner. A further examination revealed a tumefaction on the postpharyngeal wall, which immediately disclosed the real cause of the trouble. Many of these cases simulate otitic infections and are sometimes complicated by them; in this way a redened ear drum may take us off the proper scent. There are cases of this type where these youngsters suffered from a progressive loss of weight and anaemia without apparent cause. Many of these cases have been diagnosed "laryngeal diphtheria," in as much as the breathing and voice may simulate to a great degree the hoarse or quacky cough of true "Klebbs infection."

A diagnosis is, as you see, not apparent from symptomatology alone. It is necessary that a thorough examination be made of the region involved. With a restless, fretful child, this is often difficult and discouraging. Certain signs, however, should lead us to suspect this abscess and make us determined to give the case the thorough investigation it merits. The sign that I deem most important is a one sided cervical adenitis. A swelling of the cervical glands on one side only in the very young should be sufficient warning to investigate the retropharyngeal structures. Another sign of value is that the head is drawn to the healthy side and held rigidly in that position.

An examination or inspection of the throat by the ordinary methods to determine the presence or extent of a retropharyngeal abscess is unsatisfactory. After the patient is bound in a sheet or blanket a mouth gag is inserted and a headlight employed to get the proper illumination. The use of the ordinary flash light even with the assistance of the mouth gag for inspection of deep structures of the throat in infants is highly unsatisfactory.

Inspection should be made of the entire pharyngeal vault, with especial attention to the regions behind the posterior pillars, the latter

being the usual site of the abscess. In the early stages and even in the late stages of the disease with a refractory child, inspection is insufficient for a diagnosis. It is frequently necessary to employ palpation which is done by the index finger of either hand using the same technic employed as for a digital examination for adenoids. The boggy or fluctuating mass in this way can easily be made out and the diagnosis established. Were I given the choice of methods between inspection and palpation for the diagnosis of retropharyngeal abscess, I would most certainly prefer palpation. These abscesses often lead for some distance above the soft palate and down towards the larynx, and the extent and size of the abscess can be readily made out by palpation.

The size and extent of which these abscesses may assume is well illustrated in a case reported by St. Clair Thompson[13]. The abscess occurred in a child 2½ years and extended from the level of the base-occipital above, to that of the fifth cervical below; the swelling was greatest opposite the body of the third cervical vertebra and was of such extent as to impede breathing by blocking the upper opening of the larynx.

Another advantage to palpation is that it aids us in making a differential diagnosis. An inspection may reveal a swelling on the posterior wall of the pharynx and this may be due to other causes than that of a retro-pharyngeal abscess. It may be a simple adenitis, a new growth or tumor or a mass resulting from a scoliosis. Palpatation in these later cases will not reveal the boggyness and fluctuation found in the true abscess. One writer reports a case of aneurysm of the common carotid which burrowed into the retropharyngeal space, and mistaken for an abscess was opened with disasterous results. On the other hand an abscess in this region can readily burrow its way to the internal carotid artery and produce serious, if not fatal complications. A case of this type was reported by Wishart[14], of a baby 18 months old, who was perfectly well until three weeks prior to being seen, when a patchy sore throat developed. Two weeks later a swelling in the side of the neck appeared which was fomented and went down gradually. The child was comfortable on the day previous to admission. On the morning of the day of admission, it had a sudden hemorrhage from the mouth and lost about a bowlful of fairly dark clotted blood, in the evening a similar hemorrhage of about a cupful of blood of a brighter red color and more fluid. The signs of exsanguination was then very marked, the mucous membrane being almost white. The child was rushed to the hospital for transfusion, but died within two minutes of reaching the admitting office. As the child had not been examined, a clinical diagnosis of hemorrhage, probably gastric, was made, but the autopsy revealed the true diagnosis of retropharyngeal abscess with erosion of the internal carotid artery.

Care here, as elsewhere, must be taken in our diagnosis and treatment. Once in a great while it is necessary to differentiate between the retropharyngeal abscess and a peritonsilar abscess. As a rule a peritonsilar abscess will occur after the age of three, while the former occurs before this age. However, this does not hold strictly true and inspection and palpation must be practiced to make a diagnosis.

The treatment of these cases, once a diagnosis is made, is comparatively simple. Until recent times, however, there was a dispute as to whether an external or internal opening should be made for drainage. The external route is now reserved for the cold or chronic abscess of the tuberculous origin.

The instrument and position of the patient is still subject to controversy. It is my policy to wrap the child in a sheet or blanket with the arms at the side of the body and feet extended, this procedure minimizing the struggle and permitting a single assistant to have perfect control of the child. The swathed child is then held on the lap of the assistant, the head of the patient is placed slightly forward. The operator is aided with proper illumination, preferably the head light, which leaves both hands free. The mouth being held open by a mouth gag, the index finger of the left hand is inserted, and this serves the purpose of a tongue depressor, aids in localizing the abscess and acts as a guide. A short bladed sharp bistory is inserted in the mass and a vertical incision is quickly made to the extent of the abscess. The head of the patient is immediately flexed to the point where the fluid can easily escape in a pan on the floor. A few moments later a hemostatic forcep is inserted in the wound and the edges of the incision separated to aid in complete drainage. With the patient's head fully flexed, a thorough saline irrigation is given. It is important to call attention to the fact that an incision in the posterior pharyngeal wall must always be made in the vertical direction. A lateral incision due to the arrangement of the muscle fibres, will cause a pouching or pocket that will prolong healing and interfere with complete drainage. It is not necessary to administer an anesthetic, which only enhances the danger of the procedure. The work must be done accurately and quickly to avoid the possibility of insufflation or swallowing the infected material.

The procedure affords the patient such marked relief and comfort that the youngsters usually fall into a restful sleep for a number of hours. The post-operative treatment consists of warm saline irrigations orally and the in-

stillation of a non-irritating antiseptic through the nose. Acriflavine or mecurochrome, as well as the colloidal silver preparations may be used for this purpose,

An investigation into the causative factors of the disease is most important. In many cases the adenoids and tonsils are responsible. In other instances it is due to acute or chronic rhinitis or accessory sinus infections. Workers such as Schaefer[15], Davis[16], Onodi[17] have done much to expel the commonly accepted thought that sinusitis is a disease of adult life only. These workers have shown that the maxillary, sphenoid and ethmoid sinuses are present at birth and reach their maturity at puberty. Sinusitis in children is more frequent than often expected and its effect upon the deeper structures of the pharynx must not be overlooked.

The profession as well as the laity can be charged with a distinct neglect of rhinologic disease in children. Running noses and enlarged glands are accepted as a necessary evil at this age. In the first place there seems to be a misconception both by the profession and the laity as to what age or at what time a child should or can be operated upon for diseased tonsils and adenoids.

I hear the question repeated altogether too frequently, "Is my child too young to have her tonsils out or her adenoids removed?" and the statement, "The doctor said my child was too young to have her adenoids or tonsils removed." In as much as there is no age limit on disease there should be no age limit on the remedial agency. Who would suggest that a child wait until it is six years old or until it gets warmer before it has its diseased appendix removed; and why not use the same logic in reference to pathologic conditions of the nose, throat and pharynx. And we must not stop here. An adenoid or a tonsil operation is not a cure for all upper respiratory diseases. Many of these cases will still have their mouth breathing, running noses, etc., in spite of any surgery in the pharynx. A case in point is one of a child of eight that I have seen recently who had three adenoid operations. She still persisted in breathing through her mouth, and was underdeveloped physically, and backward mentally. Three more adenoid operations would never do this child any more good, for her nose was full of polyps, due originally to a simple sinusitis. This youngster will have a permanent change in her physical and mental makeup due to a lack of an early diagnosis and treatment of the real underlying cause of her condition. The literature is full of case reports of sinusitis in children and we must take cognizance of this nasal pathology that produces not only local, but systematic disturbances.

I may be pardoned for having digressed from the original thought of the paper, but this is only due to a thorough understanding of the etiology and pathology that we can hope to treat our patients rationally.

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THE USE OF INSULIN IN PERNICIOUS VOMITING OF PREGNANCY*

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During the past year there have been several articles of interest concerning the use of Insulin in the treatment of nausea and vomiting during pregnancy. Most of the writers report success with its use. Chief among these is an article by Dr. William Thalhimer of Milwaukee, writing in the August, 1924, issue of "Surgery, Gynecology and Obstetrics," in which he discusses eight cases of vomiting during pregnancy which were benefitted by Insulin. My first experience with the remedy during pregnancy was with a case of convulsions associated with ketonemia during the last week of pregnancy. This case has not been reported, but was treated by Dr. Calvin Hartman of Philadelphia in July, 1923, in association with the Diabetic clinic of Dr. Orlando Petty. This case had but two convulsions after the first injection of Insulin. I now wish to report four cases that have been clinically benefitted by the administration of Insulin and glucose.

CASE REPORTS

Case No. 1. Mrs. F., age 31, a multipara, became nauseated several days ago and this became progressively worse. She has been vomiting severely for the past twenty-four hours. Her two previous pregnancies were normal and she suffered no nausea with them. She was forty days from term and up to that time had been in good health, except for the usual morning vomiting during the first three months. On December 18th when I first saw her, the blood showed a sugar con-

*Read before the Mercy Hospital Staff Meeting, January 22, 1925.

centration of 117 mgm., the plasma was strongly positive for acetone, and tests on the urine also showed the presence of acetone and diacetic acid in large quantities. The albumin and sugar tests were negative. We concluded that the vomiting was due to the ketonemia and decided to use the Insulin-glucose treatment. At 11 p. m. she was given 10 grams of glucose in 50 per cent solution intravenously and 10 units of Insulin. The urine passed the following morning showed traces of acetone and diacetic acid, but the patient had not vomited since the injection. During the next two weeks her urine remained free from the ketones and she was about her usual work. On January 9th she again complained of nausea and the urine was examined and tests for the ketones were two plus. Ten grams of glucose and ten units of Insulin were again given with prompt relief. Urine examined showed a sugar concentration of 115 mgm.

Case No. 2. Mrs. L., age 32, a multipara, came to the Mercy hospital on September 7th after having vomited for two months. She had four previous pregnancies and vomited a great deal during them. The first resulted in a miscarriage at 6 months, but the other three progressed to term and delivered normally. The cause of the miscarriage was stated at the time as being due to the vomiting. Her last menstruation was in June, 1924, and the vomiting began soon after. She was given ten injections of Corpus Luteum without effect. The blood sugar concentration on admission was 162 mgm. The urine showed positive tests for acetone and diacetic acid. She was given about twenty c.c. of her husband's blood intramuscularly, and later 20 units of insulin and ten grams of glucose intravenously. The next morning the blood sugar was 112 mgm. and the urine was less positive for acetone and diacetic acid. She was given seven grams of glucose and 15 units of insulin with no bad effects. She felt very much better the next day and there was no evidence of ketonemia. She was discharged on the 13th, but the next day she again vomited and we found the blood sugar had increased to 234 mgm. This time she was given ten grams of glucose and 20 units of Insulin, which stopped the vomiting until the 18th, when we repeated the treatment. Each treatment seemed to relieve the symptoms temporarily, lasting but a few days, when she would again suffer from ketonemia. However she was kept fairly comfortable until the 4th of October. On that day I advised a repetition of the glucose-Insulin treatment, but she refused, saying that it made her nervous. At this time I was led to believe that she did not want the child and refused the treatment hoping that it would abort. We were unable to obtain her permission to give the injection and she aborted in two days. Our impression was that she might have carried the child to term if the treatment could have been continued.

Case No. 3. Mrs. M., age 37, a multipara, came to my office on September 29, 1924, suffering from continuous vomiting. Her family and past histories were negative. Her first pregnancy resulted in a miscarriage two years ago, at ten weeks after considerable vomiting. Her second pregnancy delivered at eight months and lived but four days. She was bothered with considerable vomiting during this pregnancy as she was with the other. She last menstruated on March 26, and has been vomiting without relief for the past week. Her physical examination revealed no pathology of consequence, but her blood showed a sugar concentration of 208 mgm. She was given ten grams of glucose in 50 per cent solution intravenously and twenty units of Insulin. She was sent home, as this was done in the office, and told to return if no better. We saw her next on November 1st, at which time she told me that she had not vomited until ten days before, but had been getting gradually worse during the ten days. She was given one ampule of Corpus Luteum which seemed to have no effect, so the glucose and Insulin treatment was again given on November 6th. This seemed to keep her quite comfortable until December 13th, when she returned with the same complaint. She was sent to the hospital because she was near to term. Her blood sugar was 138 and she was passing considerable acetone and diacetic acid in the urine. Ten grams of glucose and 20 units of Insulin were given and she began to improve. On the 15th the treatment was repeated with but 15 units of Insulin and on the 16th the urine was free from ketones. She felt very comfortable and was delivered normally on the 26th. Her urine remained free from the ketones until discharge and she had no further trouble. The child was normal at delivery and remained in good health until discharge.

Case No. 4. Mrs. T., age 39, a multipara, had been vomiting a great deal for several weeks. Her family history was negative. She had influenza in 1910, after which her hearing was seriously impaired. She has been pregnant on two previous occasions and delivered normally with no history of vomiting. She menstruated last about eight weeks ago, and has been vomiting almost constantly for the past several weeks. She was given two injections of corpus luteum with no relief and came to our office on September 22nd. Her blood sugar was estimated at 196 mgm., and she was given ten grams of glucose and 25 units of Insulin the next day. She returned home and that evening experienced symptoms of hypoglycemia, perspiration, and nervousness. She was given orange juice according to instructions given her husband and the symptoms rapidly subsided. The next day she felt so much better that she did not return for additional blood sugar estimations so we are unable to judge the value of the treatment other than clinically. She returned on the 30th with the same complaint, but not so severe. The glucose-Insulin treatment was repeated, but only ten units of Insulin was given. She has returned occasionally for other complaints and tells us that she vomits but rarely.

For many years it has been quite a problem among obstetricians as to just how to best treat pernicious vomiting of pregnancy. Extract of corpus luteum, calcium chloride, husband's blood, glucose, sodium bicarbonate, and many other drugs have been used, all with more or less successful results. It is not probable that any one of these remedies will act in all cases, but each has its place and seems to produce the desired results in certain cases. We have yet to learn a great deal about the etiology of this condition and until we gain much additional information, we must assume that there are several causes. There are many cases of nausea during pregnancy that do not show a presence of the ketones in the blood and urine. I have been unable to find accurate statistics showing the percentage of cases that seem to be due to a ketonemia, but in

about two-thirds of our cases we have demonstrated positive tests in the urine. It is because of this that we have made it routine to examine the urine and blood for acetone and diacetic acid and the blood for sugar and urea. The blood sugar may not always be high, in fact, it is frequently normal in cases showing a marked ketonemia. The blood sugar test is of importance, however, because it helps to gauge the dose of Insulin. Briefly reviewing the tests used in making the diagnosis, I would say the ferric chloride and the sodium nitro-prusside tests on the urine come first in importance. It is true that the ketones in the urine do no harm, but they are a fair index of what is going on in the blood. Next in importance is the plasma rothera test for acetone in the blood. This test will always be positive if the vomiting is due to ketonemia, and is not likely to be positive in the absence of ketonemia. The blood sugar seems to be increased more as the case progresses. Very few early cases show very much of an elevation, but after the disturbance in metabolism has gone on for some time the blood sugar begins to rise. So this test is an index of severity. The carbon dioxide combining power of the plasma, or the carbon dioxide content of the alveolar air has been, in our experience, a very reliable test for ketonemia. It may not be reduced very much in early cases of pernicious vomiting, but a reading below forty or forty-five, is evidence of some disturbance in internal respiration.

The investigators seem to differ somewhat as to the exact manner in which the Insulin is to be used. Many of them refer to the works of Banting, Allen, and other writers, and use one unit of Insulin for every two or three grams of glucose. Realizing that Insulin burns glucose to that extent they have given about thirty units for every one hundred grams of glucose, to avoid hypoglycemic reactions. Most of the cases treated in this manner were relieved of symptoms in from 12 to 48 hours.

After treating cases of diabetic acidosis one comes to the conclusion that during ketonemia it is much harder to reduce the blood sugar content low enough to produce a collapse. Just why this is true no one at present seems ready to say, but many theories have been advanced. Most of the writers make the statement that the burning of glucose in the body, due to the action of Insulin, reduces the ketonemia. This reduction takes place before the blood sugar content is lowered to any great extent; in other words, it is possible, but very difficult to throw a person with ketonemia into collapse.

It is because of these observations by metabolic investigators that I have used nearer one to two units of Insulin per gram of glucose, realizing that a collapse is improbable until the ketonemia is completely reduced. We had but one collapse in all, and that was quickly relieved by orange juice by mouth.

We have used a more concentrated solution of glucose than some of the other investigators. It is true that fluids are a great help in the treatment of acidosis, but not enough so to warrant adding to the difficulty of administration by increasing the bulk. By using a 50 per cent solution it is possible to give the entire injection with an ordinary Luer syringe. If ten grams of glucose seems not enough, the treatment can be repeated the next day. In this manner the treatments can be given in the office, thus saving the patient the expense of hospitalization.

CONCLUSIONS

1. Insulin can be used successfully in pernicious vomiting of pregnancy in the presence of acidosis due to ketones in the blood.
2. It can be used in larger doses than its ability to burn carbohydrates would indicate.

SOME FACTORS IN THE RACE PROBLEM*

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One of the advantages of a chairman's address is the latitude in choice of subject which the speaker may claim. While the above topic is somewhat far removed from medicine, it is hoped that it will not be lacking in interest to members of the medical profession as citizens, if not as doctors. In discussing any subject and more particularly an issue that has assumed the nature of a problem, the first step would be to define that problem. This is necessary at the outset to insure clear thinking. Almost any thoughtful person would state the race problem in some such terms as these: "How can we best promote harmony among the different racial elements in the United States." Some might go so far as to consider the race problem a sort of process of making over, as it were, the various foreign elements into Americans. This is the idea of the so-called "melting pot," by which in some miraculous way the various elements are to be made 100 per cent Americans. The importance of race can hardly be overestimated. Osborne, of Columbia University, stated that race has played a larger part than language or nationality in molding the destinies of man. The

*Address of the retiring president of the Detroit Medical Club, January 15, 1925.

social inheritance is the most potent of all forces. The racial is the biological factor. Everyone is familiar with the time worn debate as to relative significance of heredity and environment, of nature and nurture. Biologists almost to a man stress the heredity factor. Language, nationality, climate and so on, are all environmental factors. Blood alone tells. Or, as W. E. Henley the Poet expressed it:

"Who says that we shall pass, or the fame of us fade and die,
While the living stars fulfil their round in the living sky?
For the Sire lives in his sons, and they pay their father's debt,
And the lion has left a whelp wherever his claw is set;
And the lion in his whelps, his whelps that none shall brave,
Is but less strong than Time and the great all-whelming grave."

I purpose in this paper to examine in more or less detail, probably less, the different racial elements that enter into our American life.

Apart from the Ethiopian whose origin is in Africa south of the Sahara Desert, by far the greatest part of the population of the United States is derived either directly or indirectly from Europe. In fact, a recent writer has described the Atlantic Ocean as being largely a European basin. If we could eliminate Africa, this description is approximately true. A glance at the map of the world shows the countries bordering on the Atlantic whose population is more or less directly of European origin. This means then, that apart from the negro race, we have the three races or cognate branches of the Caucasian or white race of Europe. These are commonly known as the Nordic, the Alpine and Mediterranean. Perhaps there is no similar area in which we have all these races represented to the same extent as in Detroit. Detroit's population, according to the latest census, is composed of over thirty-six distinct nationalities, with a foreign population approximately 781,700.* I have reclassified these nationalities roughly on the biological basis of the race and find the great racial divisions of Europe represented as follows: Nordic 293,500; Alpine 393,000; Mediterranean 60,200. In addition Detroit has about fifty or sixty thousand negroes. I might say that I have no theory to propose nor thesis to defend in presenting this paper other than to crystalize my reading of a subject which I have found not only exceedingly inertesting, but of singular importance as well.

*ESTIMATED NUMBERS OF THE FOREIGN BORN AND THEIR AMERICAN CHILDREN. DETROIT, MICHIGAN.

(I am indebted for this information to the Americanization Committee of Detroit.)

Polish	200,000	Syrian	9,000
German	125,000	Finnish	8,000
Canadian	120,000	French	5,000
Italian	45,000	Swedish	5,000
Hungarian	35,000	Dutch	5,000
Austrian	27,000	Bulgarian and Macedonian	4,000
Roumanian	25,000	Danish	3,500
Scotch	25,000	Mexican	2,000
Russian	22,000	Norwegian	2,000
Jugo-Slav	21,000	Swiss	1,500
Irish	16,000	Welsh	1,200
Czecho-Slav	15,000	Spanish other than Mexican	1,000
Belgian	14,000	Turkish	500
Lithuanian and Latvian	14,000	Chinese	400
Greek	11,000	Albanian	350
Ukranian	10,000	Japanese	100
Canadian-French	9,000	Maltese	3,000
Armenian	9,000		

African between fifty and sixty thousand.

The Hebrew population of Detroit, estimated approximately 50,000, is included under the different nationalities above, particularly German, Russian and Polish.

THE UNITED STATES SETTLED BY NORDICS

While I am not a race dogmatist, the viewpoint is essentially Nordic. This country was settled by the Nordic race and if we may judge by the Johnson immigration bill passed by such a large majority at the last session of congress, (spring of 1924) the prevailing sentiment in the United States is still Nordic. In fact, the term American is understood to designate that spirit that has come down from the forefathers; the ideals of the early settlers, political and social as well as religious. It embraces the heritage from the time of Washington, Franklin and Jefferson. It also includes our literature, largely the contribution of the New England school, of such as Emerson, Thoreau, Holmes or Lowell, and of such poets as Longfellow, Bryant, Whittier. The old notion of a land of liberty, without discrimination for the oppressed of the earth, however, has required modification. Many came attracted not by ideals of freedom, but rather for material gain. Hence, good grounds for our restrictive immigration legislation.

Probably the most basic characteristic of a race is its persistence. One of the best examples of this near home, is the French-Canadian Alpinized population of Quebec, which has remained almost unchanged for the past four centuries. There are fewer English speaking people in Quebec now than formerly. The Alpine French are noted for large families numbering sometimes as high as ten and fifteen. The Nordic on the whole has small families. The disposition of the Alpinized French Canadian to look forward to a separate nationality on the banks of the St. Lawrence, can be explained by the biological character of the race persistence. France, as we shall see, is made up of three European races. This accounts largely for the lack of sympathy between the French Canadian and the European French in the late war. It is doubtful if the French Canadian and his Nordic neighbors will ever become more intimate in their relations than they are at present; and there has never been a time when those relations meant a perfect mutual understanding.

BASIS OF CLASSIFICATION

The races of Europe have been studied from

various angles. From the external appearance, the Nordic is described as a tall blond with blue or gray eyes. His skull is longer in its antero-posterior diameter, measured from the frontal bone above the nose to the occiput than, the diameter from ear to ear. The Mediterranean resembles the Nordic in the shape of his head, but he is short in stature and dark complexioned. The Alpine is round skulled, that is, the antero-posterior diameter and the transverse diameter of his head measured from ear to ear approximate each other. We sometimes note this characteristic in the shape of the hat. Felt hats in this country are made somewhat elliptical in shape to accommodate the dolicocephalic skull. When worn by the Alpine the shape of this is peculiarly distorted in its adaptation to the round skull.

Of greater importance to us than the morphological features are the psychological characteristics. I summarize the analysis made by McDougall.* Curiosity is the mother of philosophy and science. It is a predominately Nordic characteristic and modern science is very largely a product of Northern Europe. The Greeks who founded philosophy and science were compounded of Nordic and Mediterranean races. The Romans who were entirely Mediterranean, produced great lawyers and soldiers, but no philosophy nor science. While excelling as warriors, the Romans invented no new weapons.

Individualism is another Nordic trait. The Mediterranean race is social. Its civilization is essentially urban. The isolated home is peculiarly characteristic of the north. "The Englishman's house is his castle." The Mediterranean people are quick, vivacious, impetuous and impulsive. The northern people are slow, reserved and unexpressive. From the medical veiwpoint, when affected with nervous disorders the Mediterranean suffers from hysteric type; the northern from the neurasthenic type. The quality of self assertion manifests itself in the Nordics in a highly developed capacity for leadership. The Mediterranean and the Alpine are willing to be lead. The instinct of submission is strong in the Alpine. The characteristic of self-assertion explains Britain's success as colonizer. McDouugall ascribes the quality of acquisitiveness to the Nordics. Natural selection has developed this quality in peoples inhabiting cold or arid regions. This is also strong in the Alpines, less strong in the Mediterranean, strong also in the Jews and Arabs, who inhabit dry desert regions.

Of all these races the Alpine is most likely to expand and increase in numbers, as has already been shown. Wars have been particularly severe on the Nordics. Even victorious they have lost heavily, which fact cannot be better explained than in the great war. Germany at the fall of the Roman Empire, about 400 A. D., was entirely Nordic; now it is very largely Alpine. The Nordics hold only the northern part of Germany. The Alpines hold the remainder of Germany and the Balkan States. Germany's golden age appears to have been before 1618, which marked the beginning of the Thirty Years War. During the war Germany lost nearly two-thirds of her entire population. There was a sweeping replacement of the Nordic by the Alpine. The strong individualism of the fourteenth, fifteenth and sixteenth centuries gave rise to the reformation.

The Alpines show a tendency to small political units. The typical Alpine may be described as the peasant type. There are no such peasant masses in Scandinavian or in Great Britain. Constitutional government has developed among the Nordic race and has not been a success elsewhere. While exercising a certain condescention toward the "foreigner," the Nordic is democratic among his own people.

A great Nordic expansion has occured outside of Europe. The United States, Canada (except Quebec, which is Alpine), Australia, New Zealand and the white population of South Africa are essentially Nordic. Yet recent statistics show a declining birth rate among these transplanted Nordics.

THE DISTRIBUTION OF THE THREE RACES

It is interesting to trace the distribution of the three races. The original home appears to have been in south central Asia. And here I shall anticipate the term Aryan which has no reference to race at all, but to language. The migrations to Europe have been since the last glacial period. The Mediterranean race was the first to migrate. Leaving south central Asia, it followed the Mediterranean basin, keep-close to the sea. It proceeded all the way around the southern and western portion of Europe to Ireland, Wales and the Highlands of Scotland, where it colonized all the way. The western migration was favored by the mild climate influenced by the Gulf Stream. While not so warlike as the Nordic nor so strong as the Alpine, the Mediterranean race left its influence in artistic endowments including music, which it imparted to the cultures of the various countries.

The Alpine race had its inception on the high plateaux of Central Asia. The Alpine race is a continental stock caring little for the sea. It is a steady, tenacious, stable race with a strong group instinct. The great Alpine advance spread westward like a great human glacier, slow but irresistable. The Alpine now occupies the greater portion of Russia, Southern Germany, the Balkans, Northern Italy, Switzerland and the

*Is America Safe for Democracy? by McDougall.

middle portion of France. The Nordic is the northernmost race. Those portions of Europe under Nordic domination are that portion of Russia around Petrograd, Northern Poland, Northern Germany, Denmark, Norway, Sweden, Northern France, England, Scotland, except Wales and the southwestern part of Ireland, which are chiefly Mediterranean in racian characteristics. There are Nordic racial islets in Northern and Central Spain, Italy, and in the Balkans. In the British Isles there is no Alpine blood. England and Scotland are Nordic entirely except for the influx of the Mediterranean race since the rise of industrialism. France has all three, with the Alpine as large as the other two. In France the peasant as a rule is Alpine; the urban population is largely Nordic. In Belgium we have two separate and distinct races, the Flemings in the north, who are Nordic, and the Walloons in the south, who are Alpine. Here we see a distinct line of cleavage in one small country. The "melting pot" even in this small European nation has failed to fuse the two racial elements.

FACTORS INFLUENCING RACE

All races are influenced by such factors as climate or mountains. The Nordic undergoes a degenerative process if subject to a prolonged warm innervating climate. Witness the whites who live for a long time in tropical or subtropical regions or in the mountain fastnesses of Virginia or Kentucky. The Nordic is at his best when he has to withstand the rigors of the northern winter and when he has to battle for his livelihood with soil and climatic conditions that are none too friendly. Where vegetation flourishes with little effort from man we have a condition described by Goldsmith in his Traveller, referring to Southern Europe.

> "In florid beauty trees and groves appear,
> Man seems the only growth that dwindles here."

The Nordic race is undergoing what might be termed "alcoholic selection" which the Mediterranean race had passed through centuries ago. The Southern European has become temperate without prohibition since those who resorted to alcohol to excess were eliminated, leaving no progeny. Only the temperate have survived to perpetuate their kind. Eventually the Nordic will become temperate, if not abstinant, through the elimination of those who cannot survive their own intemperance. Tuberculosis is particularly a Nordic disease. Thanks, however, to medical research, its ravages are being mitigated. It is a peculiar record in history that the downfall of nations has been due in many instances to some factor which produced a deterioration in the health of the people. The decline of Greece after the Golden Age of Pericles has been attributed to the anopheles mosquito; of Egypt to the tse tse fly. On the contrary, the reclamation of the Isthmus of Panama was due to the conquest of the stegomya, the causative factor of yellow fever.

There are a number of representatives of great races in the United States other than those I have described. The Chinese, Japanese, Hindoos and others belonging to Asiatic races are not represented in sufficient quantity to warrant dealing with them at length in a brief paper such as this.

THE JEW AN IMPORTANT ELEMENT

The Jew constitutes a very important element in the population of the United States, where there is estimated to be Hebrew population of about 3,000,000. The Jew is essentially a trader and not an agriculturist. There is a tradition that through all his wanderings his purity of blood has been preserved and that he is of the true Semitic type. This has been disproved, however, according to recent scientific studies in which the modern Jew has been found of quite a different racial type from the ancient or Palestinian Jew. The Jews as we know them are classified as the Ashkenazim which include about nine-tenths who hail from Russia, Poland and Germany. The smaller group are known as Sephardim, who comprise the remaining tenth. The last are survivors from Spain and Portugal, having been expelled during the fifteenth century. They were the chief victims of the Spanish Inquisition. At present the Sephardim Jew is found largely in the Balkan States and in Smyrna, with a few also in London and Amsterdam. It is estimated that about 30,000 descendants of the Sephardim Jews live in the United States. This branch of the Hebrew race has given the world a number of very able men. Disraeli, Premier of Great Britain, and Spinoza, the philosopher, were both Sephardim Jews. Einstein, the German mathematician and Bergson, the French philosopher, both living at the present time, appear to be of the other branch.

The Ashkenazim, who came from the Asiatic borderland, was converted to Judaism during the eighth century, A. D. During the tenth century, owing to the rising power of the Slav, they were scattered far and wide. There was a great mass migration at this time to Poland, Russia and Germany. The modern Jew has been Alpinized and therefore comes under the Alpine division of the three great European races.

The modern Arab and the Bedouin are the most authentic representatives from a

racial viewpoint of the very early Semitic peoples. The modern Jew is Semite only in language. His true ancestry goes back, not to Palestine, but to the uplands of Armenia, the Caucasus and Steppes of Central Asia.

THE MAN WHO EVOLVED NO CIVILIZATION

Another large element in the population of the United States is the Negro. His original home is Africa, south of the Sahara Desert. He is not an ancient civilization. Some of the more enlightened of the Negro race lay claim to an Egyptian ancestry. This, however, is not true. The ancient Egyptian, while not a true Semite, possessed marked Semitic characteristics. In brief, Africa, north of the Sahara Desert, including the Nile Valley, appears to have been peopled by migrations from the northeast. The desert was an effective barrier to migration southward and also from the southern part of Africa northward. Black Africa lies south of the Sahara Desert, which, together with the ocean, proved a barrier which the ingenuity of the Negro had failed to surmount. It remained in a double sense the "dark continent" until scarcely more than a century ago, the white man turned his attention to this little known region. It has been estimated that there are about 25,000,000 black or more or less mixed blacks that have been brought as slaves in modern times by the white conquerors of the New World. The Negro has no history in the same sense as other races. He has never built up a civilization of his own.

He is, however, very susceptible to external influences. He copies the white man's customs very readily and easily adjusts himself to the ways of civilization. He is a good workman even at trades requiring skill. The Negro has been able to adjust himself to the various labor conditions even over the foreign white man, in as much as he speaks the language of his employer. He possesses wonderful vitality, and has increased in numbers under the most adverse conditions of servitude.

In presenting this subject I have refrained from the use of the terms "superior" and "inferior". These words should never be used in discussing the race problem. Such words imply an absolute standard which does not exist. All races have produced both geniuses and idiots and all grades between. No race has had a monopoly of the great things of the world. The Mediterranean race has given us art and music. The Nordics, philosophy and science, the Alpines a certain stability and persistance, as well as a patient scholarship. Probably the wisest attitude would be to unite the intelligence of all races against the inferior elements of all races.

"O, East is East and West is West, and never the Twain shall meet,
'Till earth and sky stand presently at God's great judgment seat;
But there is neither East nor West, border nor breed, nor birth,
When two strong men stand face to face, though they come from the ends of the earth."

I have no solution of the race problem to offer except education in its broadest sense. One cannot over-estimate the importance of our schools in promoting a mutual understanding. I would include not only the schools, but the press, the platform, the radio, rapid transit, as well as modern industrialism. All tend to promote a mutual understanding. Probably if the older American would exercise the democratic spirit on which he prides himself, toward the alien, it would help to win respect for our various institutions.

There are at present 105 nations represented at our colleges. The encouragement of exchange teachers as well as students, should be productive of an entente cordiale among the nations of the world. These are partial solutions of the race problem, practical as far as they go. We cannot "melt" our foreign population and reconstruct Americans. We should dismiss all thought of trying to do so. On the other hand, in the interests of peace, we should avoid antagonizing those of a different racial strain from ourselves. In addition to our governmental policy of limited immigration we should insist on selective immigration as well, which recognizes the best in all races. If the American of the original stock would endeavor to understand the various racial elements with which he comes into daily contact, it would insure a saner attitude towards them, as well as peace of mind for himself, for as an old Stoic proverb runs, "It is not things themselves that hurt us so much as our mental attitude toward them."

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SYSTEMIC CAUSES OF DEAFNESS

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Sudden loss of hearing may be caused by a simple local condition such as impacted wax, or again it may come as a complication in a number of systemic diseases. In general, we may state that any condition within the viscera which produces changes in the blood or in the vascular system may give a manifest pathology in the ear. One may name a considerable list, nephritis which may cause changes in the ear through sclerosis and weakened vessel walls, with hemorrhage and transudate. Leukemia, diabetes, gout, rheumatism, tuberculosis, mumps, influenza, and syphilis, are all credited with causing poor hearing. It is with syphilis as a systemic cause of deafness that this paper is chiefly concerned. This subject merits our most earnest consideration.

First, because of its prevalence. Deafness, due to syphilis, exists more often than is generally believed. Graham[1] has said that syphilis affects the eighth nerve oftener than any other of the cranial nerves.

Second, because the loss in hearing is usually bilateral and may progress rapidly to complete deafness. Our patient may be totally deaf, not in two or three years, but in two or three months.

Third, because of the irreparable damage done if treatment is neglected. While on the other hand, if the diagnosis is made early, syphilis of the ear is usually quite as amendable to treatment as is this disease in any other part of the body. Marked nerve deafness of a sudden onset and affecting both ears, which is not associated with a recent skull fracture or meningitis, is most often due to syphilis. Alexander[2] says four times out of five it will be due to acquired syphilis, while George Mackenzie[3] says the remaining one-fifth is due to congenital syphilis.

It has long been recognized that syphilis attacks every division of the auditory tract, from the auricle to the ultimate nuclei. It is not the purpose of our paper, however, to enter into a discussion of the rarity of a primary lesion on the pinna, such cases are described by Dabney[4] and others; nor will we give in detail all the points in the differential diagnosis between a lesion affecting primarily the labyrinth or one attacking primarily the eighth nerve or its central termination. These points are chiefly of academic interest, but to us as practising physicians, the item of most importance is to recognize that our patient's deafness is due to syphilis, and that the treatment, therefore, is mercury, potassium iodide and salversan, and not T & A and submucous.

One can do no better to illustrate this point than to recite the following history.

Mr. E. W., a young man, 27 years years of age, came to our office April 30, complaining that 4½ months ago following a cold, he first noticed a loss in hearing in the right ear, which was soon followed by a loss in the left ear. The condition progressed rapidly, was associated with noises in the head and some vertigo. At the end of one month he consulted a specialist who told him that his condition was due to catarrah and advised that he should have an operation on his nose. A submucous operation was performed and the patient treated with inflation and sprays. During this time his hearing was failing rapidly and at the end of six weeks of such treatment, he changed doctors. The second specialist advised him that he could not get well unless he had his tonsils removed, and this operation was performed and followed again by treatment with electric vibration, inflation, etc. After six weeks of this the patient was so deaf that he was forced to quit work. Could hear only when spoken to in a very loud voice. He says he could not hear the whistle from an electric car and was not able to hear the wheels when he was riding in a street car. When examined in our office it was noted that the bone conduction time was very short and greatly out of proportion to the rest of the ear picture.

Eleven seconds in the right ear, and fifteen seconds in the left ear, as compared with 35 to 45 seconds normal bone conduction time for this work. The Rinne was positive, that is, the air conduction time was greater than that for the bone. The high fork also showed considerable loss. The blood Wassermann was found to be four plus. The patient was placed under antiluetic treatment and in ten days showed great improvement. He has been unusually faithful in continuing his treatment. In all he has had 15 injections of neoarsphenamine at ten day to two week intervals and forty intravenous injections of 1/10 gr. of mercurosal. This has been continued with the home treatment of increasing doses of potassium iodide and mercury rubs.

At the present time his hearing is practically normal. He has no trouble doing his work. The bone conduction has increased in the right ear to 35 sec. and in the left ear to 42 sec.

Certainly the history here is very striking and quite typical. We have records and could recite in detail many similar ones. In fact, there is scarcely a week passes in our office in which the following story could not be duplicated. A patient comes, suffering from great loss of hearing in both ears, which has usually progressed rapidly and is associated with noise and some vertigo. The functional test shows a marked loss in bone conduction time; while air conduction time may be normal, but more often shows some reduction. In all instances the Rinne is positive; that is, the air conduction is greater than the bone conduction time. If we may repeat, this is the key note to our picture; a sudden loss of hearing in both ears, a marked shortening of the bone conduction time and this, strikingly out of proportion to the loss in the air conduction time; the Rinne therefore is positive. This is more than sug-

gestive of syphilis as a causitive factor, especially when seen in a patient under 40 years of age. The otologist would likely make fewer mistakes if he classed in his own mind all such cases as due to syphilis and treated his patient as such until the diagnosis was disproven. With this in mind he certainly will have a Wassermann test, and if this is positive the diagnosis is establshed. While, if the Wassermann is negative we usually have it repeated at another laboratory and follow with a cause of potassium iodide and mercury. We believe all these cases should be placed under anti-luetic treatment regardless of the Wassermann report. It is very gratifying to see how many of these will improve in their general health and also in their ear condition.

In making a diagnosis of syphilis as a cause of deafness, there are four points to be considered:

1. The history.
2. The functional tests.
3. The laboratory findings.
4. The response to specific therapy.

THE HISTORY

We have spoken of the history in some detail; suffice it to say here that the loss of hearing is practically always bilateral, progresses rapidly and is usually quite marked, at least in one ear, when the patient is examined. This dictum is quite common knowledge to the Otologist and is cited in many instances in the literature.

FUNCTIONAL TESTS

Beck[5] of Vienna was first to call attention to the shortened bone conduction with a fair or normal air conduction time as being significant of lues. At first it was believed that this was an absolute indication of syphilis. It has been shown, however, that any condition which produces an increased pressure in the posterior fossa of the brain may give the same short bone conduction. Notwithstanding this, the test is a most valuable aid and is said to be present in from 80 to 95 per cent of the cases of syphilitic envolvement of the eighth nerve. An analytical account of the lowered bone conduction in syphilis is given by Gaeshermann, Barlow and Stokes in the "Collected Mayo Papers" of 1918.

Functional tests on the ear are coming more and more into prominence. There is much to be expected from the newer type of tone-testing apparatus that is being developed. The "fork test" as we now do them are admittedly very crude, but at that they are far too important to be neglected and should always be done as carefully as possible, by accurately timing on a watch the number of seconds for each test. They should be repeated at the patient's second visit so that we may have some index as to their accuracy. At the present time we feel that a carefully performed "fork test" is the most reliable of all the methods at the disposal of the otologist. We give it preference over the history and over the otoscopic findings.

A great deal has been written in late years relative to the value of functional tests made on the static labyrinth. It has been advanced that such examinations were of considerable value in making a diagnosis of syphilis affecting the second division of the eighth nerve. Robert's[6] writing in 1919 concerning "The frequently neglected evidence of syphilis," gives the following outline:

1. Progressive reduction of the nystagmus time (below 26 sec.) after turning, or reduction remaining constant in the presence of other evidence of syphilis.
2. Absence of a turning reaction with a calorie reaction present, or vice versa.
3. Irregularities in the reactions between the vertical and the horizontal canals.
4. Vertigo present without nystagmus or exaggerated after turning, or caloric nystagmus without vertigo.

We must confess that we have not been faithful in doing a detailed Barany test on every patient, but would excuse ourselves by saying, that in many cases where we have follower out such a procedure, the findings have at times been unsatisfactory. In our hands, after turning, the nystagmus in the normal person often varies from day to day. One of us recently saw a case in Beck's clinic at Chicago where the patient could voluntarily vary the nystagmus as he wished. Also the discrepancies observed in the reactions between the vertical and horizontal canals we feel, in many cases, is quite unreliable. It often is very difficult to make an accurate observation on the very slight rotary nystagmus that may follow the stimulation of one of the vertical canals. Vertigo present without nystagmus can hardly be said to be characteristic of syphilis as it is often seen in any slight irritation to the labyrinth. Exaggerated vertigo, after turning, is said by Brunner[7] and others to be characteristic of multiple sclerosis. The tests made upon the static labyrinth have one great advantage and that being that they are purely objective, at least in most cases. The test is of great value in case of malingering. Many of our cases of proven syphilis have shown a short nystagmus time after turning, but we have not been able to feel that any finding made out by an examination of the static labyrinth was pathognomic of syphilis, but rather only confirmatory.

We do not wish to place the study of the static labyrinth in disrepute with you, but would rather encourage its further investigation, in hopes that later we may perfect our methods and findings and realize all that has

been promised by some of the more enthusiastic supporters of this test.

LABORATORY FINDINGS

There are two points worthy of special mention here, *one* being the negative value attached to a negative Wassermann, the *second* being the positive value of a routine Wassermann. It is common knowledge that a negative Wassermann does not exclude syphilis. Especially is this true of a blood Wassermann relative to syphilis of the central nervous system. Various authors have said that the Blood Wassermann would be negative in from 40 to 60 per cent of the cases of central syphilis. The taking of a blood Wassermann as a more or less routine is an excellent practice. Keidel[8] has found that with two clinicians of equal merit, one taking a Wassermann only when he found a clinical manifestation that indicated the test, the other taking the test as a routine; that the first man was only one-third as efficient in determining syphilis as the second man. With this in mind, the otologist need offer no apology for asking his patient, who is complaining of marked deafness to have a blood Wassermann, and if it is negative, to continue to question syphilis as the etiology. The final court of appeal being either a spinal puncture, or what would seem possibly more practical, to place the patient on a course of potassium iodide and mercury.

PATHOLOGY

The pathology of syphilis, responsible for poor hearing, must be quite varied in different cases. In general they will fall into one of two groups.

1. Those that are classed as neuro-syphilis, which in reality have their origin in a chronic or sub acute basilar meningitis.

2. That large group of syphilis which includes lesions affecting the bony structures and the vascular system.

In view of some of the recent work done by Obesteine[9] and others in neuro pathology, it is reasonable to believe that parasyphilitis affections of the central nervous system, including the involvement of the cranial nerves, tabes, paresis, etc., are secondary to a syphilitic meningitis. In other words, the original lesion is thought of as an inflammatory irritation of meninges which is followed first by a proliferation of cells in the outer layer of the cortex and later by sclerosis and contracture, causing atrophy from pressure. The eighth nerve is especially susceptible in such a process as it loses its myelin sheath early and is therefore thought to be easily affected by pressure. One can readily visualize how we may have either a primary or secondary atrophy of the auditory nerve just as we see these two conditions in the optic nerve as a manifestation of parasyphilis. Primary atrophy follows a low grade syphilitic meningitis which produces scar tissue and contracture that squeezes the life out of the nerve. In a more active and pronounced case the inflammation spreads to, and involves the nerve itself, producing an active neuritis, that is later to be followed by secondary atrophy. That many of these cases really have their origin in a lesion that is central and not peripheral, is supported by the severe headaches complained of, which will be relieved by anti-luetic treatment, also by the fact that other cranial nerves are involved, at the same time as the eighth nerve. We must say, however, that the last finding has been observed by us to be quite uncommon.

Keidel and Kemp[10] report a study made on twenty-two cases of deafness due to late congenital syphilis. They believe that in the congenital case the loss of hearing is as a rule due to a peripheral lesion in the labyrinth and not to a low grade meningitis. This is supported by the fact that the blood Wassemrann was positive in 90 per cent of their cases, while detailed studies made of the spinal fluid were invariably negative for evidence of cerebro spinal syphilis. They observed also that cranial nerves, other than the eighth, were rarely involved in the congenital case suffering from deafness. To explain their finding, they have assumed that the congenital case with syphilitic meningitis dies either in utero or in early life. The patents who survive, and during adolescence have a loss of hearing as a result of congenital syphilis will have their lesion either in the small vessels of the labyrinth or in the form of a periostitis. The latter affecting the bony labyrinth or the bony canal through which the nerve passes.

Roberts[11] has made a most interesting observation, namely that from 80 to 85 per cent of the patients who show paracusis (hear better in a noisy place) will have a positive Wasserman either in the spinal fluid or in the blood. This he believes is due to a fixation of the stapes in the oval window following a periostitis of the labyrinth of luetic origin.

TREATMENT

Our experience would cause us to believe that the giving of arsephenime in guarded doses at ten day to two week intervals combined always with mercury rubs and increased doses of potassium iodide was the treatment of choice. We have seen no ill effects from the giving of arsephenime when combined with mercury and potassium iodide.

SUMMARY

1. Syphilis a cause of deafness is quite common and often goes unsuspected and is therefore untreated.

2. A careful fork test is one of our best guards against such mistakes.

3. The prognosis is good as a rule in the early acquired case, but less favorable in the congenital case.

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ADRENAL TUBERCULOSIS CASE REPORT*

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Mr. F. D., age 41, by occupation a baker, was admitted to the hospital on October 15, 1924. He complained of indigestion, vertigo, and weakness.

The family history is essentially negative. Patient's father died of asthma. No history of T. B. or malignancy obtained.

His *past health* has been good. He had usual children's diseases. At the age of 19 he had an attack of pleurisy which kept him in bed for 9 weeks. He recalls that the attending doctor drew pus from his chest with a needle. During this time his stomach was as "hard as a board," to use his expression. This must have been an attack of purulent pleurisy. Fourteen years ago his right testicle was crushed in an accident, necessitating its removel.

Patient's *present ailment* dates back about one week. On getting up in the morning he felt weak and dizzy. He was able to begin his work as usual that morning, but at noon he was obliged to discontinue his work. The following three days he kept at his work, but the feeling of weakness and dizziness persisted. He was not able to retain any food in his stomach and his appetite, which was good previous to the onset of the present trouble, was poor. His condition has become progressively worse. He has remained at home the three days previous to admission. For the past few days he has noticed a dryness in his mouth and a feeling of pressure in the region of the stomach. Patient does not give any symptoms of a cardio-respiratory nature. He was extremely restless while giving his history.

Physical examination showed an emaciated man weighing about 90 or 100 pounds. Besides being emaciated he was in a dehydrated condition. Skin was otherwise negative. Pupils reacted to light and accommodation, but at times were markedly unequal. Teeth extracted. The throat and tonsils were intensely red. Tongue was small and had a clean and intensely red appearance. A few dark patches on the mucosa along the line of closure of the teeth were noted. No cervical adenitis. Chest expansion fair. No pathology was found in the lungs. Heart sounds were very feeble, but no murmurs were heard. No irregularity in rate. Systolic blood pressure was 70; the diastolic could not be registered. No abdominal pathology except for a dull ache in the region of the umbilicus. Patellar reflexes were diminished. Patient was in too weak a condition to be tested for Rhomberg and other reflexes. No enlargement of the lymph glands was noted. No edema of the extremities. His temperature was subnormal being at different times 98^0, 96^8, and 95^0. An hour before his death his temperature was 99^6. Pulse rate was usually between 90 and 100. Respirations from 20 to 24 per minute.

Urinary findings were negative

Blood Wasserman was negative.

Spinal Fluid was negative, except that reduction of Fehling's solution was very slight.

Examination of blood upon admission showed a red cell count of 6,730,000, cells being normal in appearance, Hg B —100%, a white count of 14,150 with 33% polys and 62% lymphocytic. The following day another blood count was taken, showing:

A red cell count of.....	7,460,000
Hyb	112%
A white cell count of.....	14,500

The high red count is no doubt due to dehydration. Accordingly, a certain definite volume of the patient's blood was taken and the ratio between the volume of the serum and that of the red blood cells contained was estimated. This was found to be 2:1. In a control the ratio was found to be 3:1. Accordingly, his red cell count would normally be approximately 5,000,000. Somewhat similar, (but more accurate) methods have been used at the Mayo Clinic in similar conditions with practically the same result. We can assume then that his red cell count was within normal limits.

X-ray examination showed nothing of importance except an adhesion of the left leaf of the diaphragm at the costo-phrenic angle. The lung fields were clear.

Eye grounds were negative.

The patient died some hours after admission to the hospital. During the night he was very restless and slept only at intervals. He was continually complaining of feeling very weak

*Presented at Bi-Monthly Meeting of the Kent County Medical Society, January 28, 1925.

and tired. Glucose solution per rectum was given because of his inability to retain food. Several hours before death his pulse rate went up and he began perspiring profusely. Breathing became very shallow and he died soon afterwards. His sudden death precluded any attempts at suprarenal treatment.

SUMMARY OF HISTORY

(1) Marked weakness coming on in the course of one week.

(2) Inability to retain food.

(3) Vertigo which may have been due to his extreme weakness.

(4) Anorexia.

(5) A history of pleurisy with purulent effusion 22 years ago.

SUMMARY OF PHYSICAL AND LABORATORY FINDINGS

(1) Patient is in emaciated and dehydrated condition.

(2) Red cell count is normal considering the marked dehydration.

(3) A lymphocytosis of 62 per cent.

(4) A systolic blood pressure of 70.

(5) Slight cyanosis due to vascular asthenia.

(6) Subnormal temperature.

(7) Few brown patches on buccal mucosa.

From the marked myasthenia and vascular asthenia, the vague gastro-intestinal symptoms, and a subnormal temperature, a diagnosis of Addison's disease was made, although pigmentation of the skin was lacking.

Autopsy was immediately performed after the death of the patient. (I am only reporting findings which have any bearing on diagnosis.)

Pigmentation and hyperemic patches were found upon posterior half of the hard palate. Brown patches of pigmentation on buccal mucosa on both sides, more so on the right side.

Skin of body dry and atrophic and of a brownish color.

Left adrenal gland measures 3x1x1½ cm. It is firm and irregularly shaped. Cut section shows fibrous tissue with nodules of softer light yellow color.

Right adrenal gland 3½x2½x1½ cm. Fat scanty. Cut section surface similar to left. Caseating material at one pole.

Both lungs adherent from base to apex. Lungs show marked anthrocosis. No palpable tubercles. Bronchial nodes, small, hard and pigmented.

Microscopic sections of lung show anthrocosis, passive congestion, and marked fibrosis,, an area of subacute inflammation. No tubercles or giant cells.

Microscopic section of the adrenals shows a complete degeneration of the adrenal tissues, with caseation necrosis. Adrenal tissue is beyond recognition. Cells do not stain at all except for a thin line of tissue in the cortex around the edge. In one section two very small tubercles were found with some giant cells.

CONCLUSIONS

(1) We have a case of a patient with T. B. of the adrenals, who was apparently in good health a week previous to his death. Autopsy showed the adrenals to be completely destroyed except for a very small portion of the cortex which could hardly be recognized and which scarcely took the stain. The process is one of long standing and not an acute affair springing up suddenly. We might infer from this finding that as long as only a minute portion of the cortex is functioning, life is possible.

(2) No other tuberculosis focus was found on autopsy. It might be possible, however, that the pleurisy of 22 years was of tuberculosis origin.

(3) This patient did not suffer from anemia. Although anemia is occasionally present in some cases of Addison's disease, it is not an essential feature. Of seventeen cases observed at the Mayo Clinic, definite anemia was present in only one case. Another common finding in these cases is the relative lymphocytosis.

(4) Pigmentation of the skin, another very common finding in Addison's disease, was also absent, except for the areas of pigmentation in the oral cavity. This is in keeping with the observations of various writers that "cases unattended by bronzing of the skin are often rapidly fatal."

THE JOURNAL
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IT FOR THE
EXPRESSION OF
YOUR VIEWS
ON
MEDICAL SUBJECTS

PUBLIC HEALTH ACTIVITIES

Edited By

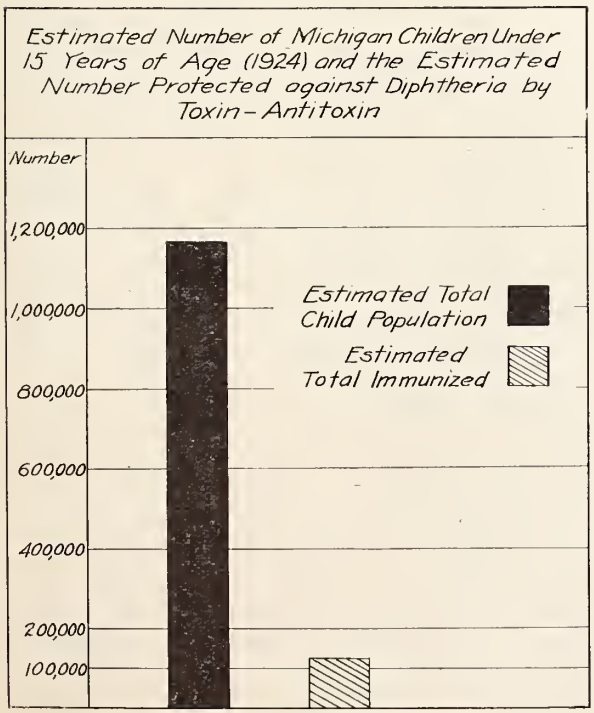
MICHIGAN DEPARTMENT OF HEALTH

THE PREVENTION OF DIPHTHERIA

Although diphtheria is absolutely preventable, and might well be a disease of ancient history, 466 persons needlessly died from this cause in Michigan in 1924. A total of 6,011 cases were reported in the same period. The unnecessary suffering, anxiety and loss of life which these statistics represent are worthy of consideration. In view of the fact that antitoxin, toxin-antitoxin and Schick material have been available without charge for two and one-half years, the continuing activities of the Klebs Loefer bacillus demand the attention and the co-operative efforts of the medical profession of the state.

Park has made it very clear that the older methods of preventing diphtheria will not eradicate the disease. The isolation of carriers, the treatment of cases with antitoxin, and the passive immunization of contacts with smaller doses of antitoxin are all valuable procedures, but the disease cannot be entirely controlled by these methods alone. Active immunization with toxin-antitoxin is recognized as the only infallible safeguard, and when properly carried out, always confers the desired protection upon the community.

ONLY A SMALL NUMBER OF MICHIGAN CHILDREN IMMUNIZED



The morbidity and mortality from diphtheria continue to be excessively high because only a few Michigan children have been immunized with toxin-antitoxin. During the three years in which toxin-antitoxin has been distributed free, this department has sent out 380,230 c.c. of this product. It is probable that some immunizations have been done with toxin-antitoxin obtained from other sources; therefore, in estimating the number of protected children, no deductions are made for the loss of toxin-antitoxin (at least 10 per cent of the material is destroyed from breakage and during administration). The number of immunized children is estimated at 126,743, or one-third of the number of c.c. of toxin-antitoxin sent out. Because there are no deductions for loss of material, or for the 10 per cent of cases who require more than three doses, this estimate is liberal. According to the most recent population estimates (1924) there are 1,163,443 children under 15 years of age in Michigan. Only 11 per cent of these children have been immunized against diphtheria. This deplorable state of affairs is shown graphically in Figure 1.

CLINICAL FACTS REGARDING TOXIN-ANTITOXIN

Diphtheria is pre-eminently a disease of infancy and early childhood. Of the 675 individuals who died from this cause in Michigan during 1923, 338, or 50 per cent were less than five years old. In the same year, 5,069 diphtheria cases outside of Grand Rapids and Detroit were reported and 916, or 18.1 per cent of these cases were under five years of age. To be successful, diphtheria immunization projects must include the children of pre-school age. The giving of toxin-antitoxin to the older children alone will not eradicate the disease. That every child over six months of age should be given toxin-antitoxin is now a firmly grounded principle of preventive therapeutics.

Toxin-antitoxin allows the individual to actively immunize himself against diphtheria. Diphthera toxin is much too poisonous to use for immunizing purposes, but it has been found that this toxin can be neutralized to the extent of not being poisonous, and yet stimulate the development of antitoxin by the individual. This is the basic principle of toxin-antitoxin immunization.

The composition of the mixture is now as follows: Each cubic centimeter of toxin-antitoxin mixture now contains 1/10 L+

dose of diphtheria toxin, together with a sufficient amount of antitoxin to neutralize it. The toxicity of the product is 1/30 as great as the former mixture, and it is just as effective. The clinical importance of the less toxic product is very great. Patients can now be promised immunization without severe constitutional reactions.

The practical details of giving toxin-antitoxin have not changed, but your attention is called to the fact that a single series of three injections does not completely immunize every child. About 10 per cent of children require a second series. Because so many children are susceptible, we do not recommend Schick testing before giving toxin-antitoxin, but we do strongly urge Schick testing from three to six months after immunization, to make sure that the patient is no longer susceptible. Nearly all of the cases of diphtheria which occur in persons supposed to be immunized with toxin-antitoxin can be explained by failure to establish their lack of susceptibility by means of a Schick test.

In four Michigan institutions whose total inmate population is over 4,000 people of all ages, there has not been a single proved case of diphtheria among the inmates since the giving of toxin-antitoxin was made routine two and one-half years ago. In two other institutions where this procedure is not routine, several cases are known to have occurred.

Summarized briefly, the proved clinical facts regarding toxin-antitoxin immunization are as follows:

1. All children who are six months of age or older should receive toxin-antitoxin. The importance of immunizing children of pre-school age cannot be over-emphasized.

2. Three doses of toxin-antitoxin, each of them 1 c.c., should be given at weekly intervals.

3. With the toxin-antitoxin mixture now in use, severe constitutional reactions are almost never encountered.

4. Not earlier than three months, and preferably six months after the toxin-antitoxin series has been completed, a Schick test should be performed.

THE STATE-WIDE DIPHTHERIA PREVENTION CAMPAIGN

The obvious remedy for Michigan's diphtheria situation is a state-wide campaign for toxin-antitoxin immunization. Such a campaign has been instituted by the Michigan Department of Health. New posters, pamphlets and newspaper material are being prepared. Motion picture films on diphtheria will be loaned. Lectures are stressing toxin-antitoxin immunization. A nurse is devoting her full time to the problem of encouraging parents to have their children of pre-school age given toxin-antitoxin. County medical societies are being circularized and urged to sponsor and participate in local immunization campaigns. With the approval of local physicians, and only under these circumstances, an immunizing unit consisting of a physician and a nurse will be sent into the field.

All of the services outlined are at the disposal of Michigan physicians. As stated in the February issue of the Journal, the Council of the State Medical Society has endorsed the state-wide immunization campaign. With the co-operation of every County Society it is possible that diphtheria can in actual fact be made a disease of ancient history in Michigan.

G. H. R.

WE CAN READ YOUR WRITING, BUT WE CAN'T READ YOUR MIND

The habit of reaching for a prescription pad that is incorporated so as to be part and parcel of every physician's actions is the greatest source of error and grief in the laboratory of the Michigan Department of Health. Every day brings from 500 to 1,000 specimens to the laboratory. These must be opened, time stamped, description of the specimen read, and the specimen classified and entered on an accession sheet, all before delivery to laboratorians for examination.

We have provided blanks for practically all specimens, at least for the material most often sent in to the laboratory. These have been sent to every patron of the laboratory time and time again.

When a specimen is received in the laboratory without information as to the character of the material and the diagnosis wanted, the time of entry is increased from three minutes to about three-quarters of an hour, because the clerical help, although we have well educated persons in this division of the laboratory, is not scientifically trained, and they must refer the specimen to either the director or the assistant director of laboratories. This in itself entails a delay until after the mail is entered in the morning. Add another two hours' delay. In this way very often a specimen received without information in the package as to the character of the material, is held over until the next day before report can be made.

If a blood specimen is received in the laboratory without information, it might be for culture, for Widal test, for blood chemistry, or for serum diagnosis of syphilis. If a straw colored liquid is received in the laboratory it might be urine, a pleural fluid, a spinal fluid, fluid from a cyst, ascitic fluid, hydrocele, et cetera, et cetera. To determine just what is wanted is impossible unless information is given.

Recently an amber colored fluid was received,

judgment passed based upon probability, and report made without it going over the director's desk. The amber colored liquid was not urine, but was a sample of cistern water. At least, the cistern did not have nephritis, as the report was negative throughout.

Recently a hemolyzed blood was received in the laboratory without information, except the patient's and doctor's names. As the preponderance of our work on blood specimens deals with the serum diagnosis of syphilis, the specimen found its way into the Wassermann laboratory, where it was reported out hemolyzed, Wassermann test could not be made. Thirty-six hours later a letter arrived in the laboratory stating that this particular specimen was blood from an intestinal hemorrhage, and a culture for typhoid was wanted.

One per cent of the specimens received in the laboratory are received without information. We wish to announce that no specimen will be examined in the laboratory of the Michigan Department of Health unless accompanied with information as to the source and character of the specimen.

PERNICIOUS ANEMIA

Why is it that Michigan has a rate more than double that of the United States registration area for pernicious anemia? Below will be found a comparison of these two rates for the five years, 1918 to 1922 inclusive:

Year	Registration Area	Michigan
1918	5.6	13.5
1919	4.9	11.8
1920	5.5	12.3
1921	5.4	11.8
1922	6.0	11.5

It occurs to us that the reason for this high rate will be found in one of three things:

First, that there is something peculiar in Michigan climate that tends to produce this disease, but we can find nothing in literature that would indicate any climatic influence.

Second, that there is some peculiarity in the water or food supply that would influence this cause of death, but again we find nothing in literature that would indicate any local influence of disturbed nutrition on the disease.

Third, would be incorrect or careless diagnosis on the part of the physician or carelessness of the certification of the cause of death on the death certificate. We believe this last factor to be the most important of the three.

Experience has taught us that physicians occasionally fall into bad habits of statements on death certificates. They frequently grasp new things and assign causes of death to the title which is new to them without sufficient authority for so doing. We recall a number of years ago, a prominent surgeon read a paper before a State Medical Society on acidosis. This was a new thing at that time, but the following month nine certificates were received giving the cause of death as acidosis. All of which was, of course, perfectly right and proper if this was the actual cause of death, but what was the cause of the acidosis?

Every effort is made in statistical offices to classify deaths according to the primary cause and only those cases in which pernicious anemia is the primary cause should be so certified.

In those cases in which the anemia is secondary or a sequela of some other disease, it should be stated as a "contributory" cause and the primary cause, which produced the anemia, should be stated. If the primary cause is not known, the certificate should state Anemia, (Secondary), primary cause unknown.

The present practice of stating this cause of death cannot fail in time to reflect on the diagnostic ability of the physicians of this state.

W. J. V. D.

COUNTY PUBLIC HEALTH NURSES IN MICHIGAN

The following brief resume shows a few of the activities of public health nurses for the past 18 months:

Number counties in state having county nurses	34
Number of nurses doing county work	64
The county public health nurses in Michigan in 18 months reported:	
Nursing visits made by them	9,854
Instruction and demonstration visits totaled	40,658
Visits to communicable diseases totaled	4,152
Grand total of visits of all kinds by County nurses was	78,653

School work of County Public Health Nurses:

Total number of visits to schools	6,678
Total number pupils inspected	122,483
Total number of pupils with defects	58,859
Total number of pupils with defects corrected	14,724
Total number of defects found	158,818
Total number of defects corrected	24,014
Percentage of pupils with no defects	51.9
Percentage of pupils defective	48.1
(Of the 58,859, or 48.1 per cent defective pupils, each pupil had an average of 2.7 defects.)	
Percentage of pupils having defects corrected	25.0

Occasionally, some almost incredible happening makes one realize that the public still have much to learn about matters pertaining to their health. Scientific medicine has not yet entirely overcome the incantations and superstitions of the Middle Ages.

On December 31, 1924, an old man died at Britton, probably from carcinoma of the liver. The case was brought to the attention of the Michigan Department of Health by local physicians, and by the absence of a doctor's signature on the death certificate. Investiga-

tion revealed the fact that the deceased had been treated by a woman living at Monroe, Stefania Patrovich, by name. Madam Patrovich's therapeutic measures were, speaking mildly, quite extraordinary. The patient was covered with horse manure and wrapped in a blanket. A carrot, which had been urinated upon, was hung in the chimney of his house for nine days. When her patient died, Mrs. Patrovich maintained that he was only in a trance, and ordered him rubbed with oil. The oil failed to restore life.

The woman has been arrested for practising medicine without a license. Her case will undoubtedly be disposed of in court, but the problem of demonstrating the value of scientific medicine to the public still remains. That this woman was able to find individuals who had faith enough in witchcraft to pay for her treatments is not a pleasant commentary on our modern civilization. But it is a compelling argument for intensive and individualized public health education.

Dick toxin for skin testing, Dick toxin for prophylaxis, or scarlet fever antitoxin prepared either by the method outlined by the Dicks or the method outlined by Dochez, have received a great deal of attention in the literature in the past year.

It is the opinion of the Commissioner of Health that these products, although of definite scientific value, are not sufficiently well standardized to admit of practical application by the general practitioner.

The Hygienic Laboratory of the United States Public Health Service, which is entrusted with the authority to issue licenses for the manufacture of biologicals which are sold in interstate traffic, has not issued a license for any of these products, based upon the fact that it is impossible to get a sufficient number of individuals collected for standardization of the products which would be submitted to them by the various biological houses. There are no animal, safety or potency tests for these products. They must be standardized on human beings. Therefore, until more extended scientific investigations standardize the products, we feel that scarlet fever prophylaxis is still in the experimental stage.

Smallpox outbreaks have occurred in three Michigan counties, Berrien, Hillsdale and Menominee. There has been the usual high percentage of cases among individuals who had never been vaccinated. The total number of 1924 deaths from smallpox in Michigan was 227. Three outbreaks of smallpox is not a good beginning for the new year. Have all of your patients been successfully vaccinated?

PREVALENCE OF DISEASE

(January Report)

CASES REPORTED

	Dec. 1924	Jan. 1925	Jan. 1924	Average
Pneumonia	398	522	622	906
Tuberculosis	438	448	322	356
Typhoid Fever	65	54	27	53
Diphtheria	496	421	961	1046
Whooping Cough	324	502	291	549
Scarlet Fever	1228	1310	1617	1407
Measles	579	707	2247	1545
Smallpox	58	151	543	482
Meningitis	10	13	24	14
Poliomyelitis	17	4	3	2
Syphilis	1116	1189	846	714
Gonorrhea	819	827	895	863
Chancroid	11	17	25	20

CONDENSED MONTHLY REPORT

Lansing Laboratory, Michigan Department of Health, January, 1925

	+	—	+—	Total
Throat Swabs for Diphtheria	.....	.....	....	3461
Diagnosis	115	811	....	.....
Release	330	685	....	.....
Carrier	37	1453	....	.....
Virulence Tests	25	5	....	.....
Throat Swabs for Hemolytic Streptococci	.....	.....	....	2282
Diagnosis	301	405	....	.....
Carrier	246	1330	....	.....
Throat Swabs for Vincent's	15	903	....	918
Syphilis	.....	.....	....	10246
Wassermann	1049	4070	84	.....
Kahn	1176	3818	49	.....
Darkfield	.....	.....	....	.....
Examination for Gonococci	168	1386	....	1554
B. Tuberculosis	.....	.....	....	428
Sputum	55	357	....	.....
Animal Inoculations	3	12	1	.....
Typhoid	.....	.....	....	160
Feces	17	81	....	.....
Blood Cultures	1	13	....	.....
Urine	.....	4	....	.....
Widal	5	39	....	.....
Dysentery	.....	.....	....	.....
Intestinal Parasites	.....	.....	....	43
Transudates and Exudates	.....	.....	....	139
Blood Examinations (not classified)	.....	.....	....	238
Urine Examinations (not classified)	.....	.....	....	327
Water and Sewage Examinations	.....	.....	....	361
Milk Examinations	.....	.....	....	71
Toxicological Examinations	.....	.....	....	6
Autogenous Vaccines	.....	.....	....	16
Supplementary Examinations	.....	.....	....	307
Unclassified Examinations including Institutional surveys	.....	.....	....	2797
Total for the Month	.....	.....	....	23354
Cumulative Total (Fiscal year)	.....	.....	....	139208
Increase over this Month last year	.....	.....	....	5687
Outfits mailed out	.....	.....	....	17854
Media Manufactured, c.c.	.....	.....	....	318610
Diphtheria Antitoxin distributed, units	.....	.....	....	15980000
Toxin Antitoxin distributed, c.c.	.....	.....	....	22780
Typhoid Vaccine distributed, c.c.	.....	.....	....	1675
Silver Nitrate Ampules distributed	.....	.....	....	4868
Examinations made by Houghton Laboratory	.....	.....	....	1135

The Journal
OF THE
Michigan State Medical Society
ISSUED MONTHLY UNDER THE DIRECTION OF THE COUNCIL

PUBLICATION COMMITTEE
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Grand Rapids, Michigan

Entered at Grand Rapids, Michigan, Postoffice as second class matter.
Acceptance for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917, authorized August 7, 1918.

All communications relative to exchanges, books for review, manuscripts, news, advertising and subscriptions are to be addressed to F. C. Warnshuis, M. D., 4th Floor Powers Theatre Building, Grand Rapids, Michigan.
The Society does not hold itself responsible for opinions expressed in original papers, discussions, communications, or advertisements.

Subscription Price—$5 per year, in advance

MARCH, 1925

Report Malpractice Threats Immediately to Doctor F. B. Tibbals, 1212 Kresge Building, Detroit, Michigan.

Editorials

MENTAL OUT CLINICS IN CONNECTION WITH THE STATE HOSPITALS

GEORGE F. INCH

Comparatively few medical men are aware that clinics for mental diseases are being held regularly by the State Hospitals in many cities throughout the state. This is partly because little effort has been made to spread this information and partly to the lack of interest on the part of medical men in mental disorders, notwithstanding the fact that the care of mental patients is one of our biggest medical and social problems. It is gratifying now to know that the State Medical Society is about to make an effort toward establishing mental clinics. It seems to me, however, that a traveling mental clinic, or one held occasionally in a town, can only be of value for diagnostic purposes and for enlightening the general public in the nature and causes of insanity. We can expect little to be done by these in the matter of adjusting and treating mental patients.

The writer is of the opinion that many early cases of mental disorder can be helped and kept from commitment to an institution by frequent visits to psychiatric clinics where they may receive encouragement and help in adjusting their difficulties.

Mental out-clinics were established by the superintendent and trustees of the Kalamazoo State hospital in 1916 and Michigan became one of the pioneers in the work, although shortly before this out-clinics had been established in Massachusetts. When the present State Hospital Commission came into existence it thoroughly endorsed this extra mural activity and later extended the clinics until now the hospitals at Newberry, Traverse City and Pontiac are conducting clinics in several cities in each hospital district.

The Kalamazoo State Hospital has been holding monthly clinics in Lansing, Jackson, Grand Rapids and Kalamazoo. It was the intention at first to open clinics in a number of other cities throughout this hospital district, but for various reasons this has not been possible. In opening these clinics the authorities had in mind certain definite reasons for engaging in this new work. Some of the more important were:

First, to get in touch with the beginning mental cases with the hope that by early treatment they would be saved from commitment to the hospital.

Second, to supervise and assist former patients of the hospital so that their stay at home might be prolonged.

Third, to study the mental, physical and environmental conditions of the families of the insane inmates of the hospital with the idea of removing any conditions which might tend to cause other members of the family to become mentally deranged. We were particularly interested in studying the families of our syphilitic patients.

Fourth, to have the hospital physicians come in closer contact with the relatives and friends of our patients in the hope that we might break down that feeling of suspicion on the part of some against the hospital. It has always been true that people are suspicious of any institution that stands apart and about which they are ignorant.

Fifth, to educate the people as to the nature and causes of insanity and methods of prevention.

In starting these clinics it was felt that the Probate Judge, in whom is vested the authority of committing the insane to an institution, would be the proper authority to ask for help in this matter. We found a very ready response, and more judges asked for clinics than we could possibly grant. The county authorities, through the Probate Judges, agreed to pay the necessary traveling expenses of the physicians in attendance, the State Hospital furnishing the

time of the physicians. The personnel of the out-clinic staff consists of two physicians and a psychologist. There should be added to these another physician and a psychiatric social worker. The work of the latter has been carried on largely by the various social organizations located in the different cities we visit. These organizations have given very valuable assistance, but have not had sufficient time to devote to this work.

Patients have been referred to the clinics by the schools, by the probate and juvenile courts, by the circuit courts, by the sheriffs, by police officers, by the various city charitable organizations, by physicians and many patients have come voluntarily.

When the patient requires medical treatment the staff has been very careful to ascertain the name of the family physician, to whom he is referred for treatment. The type of patients seen at various clinics has proven quite different than we anticipated. Supervision of our discharged patients has been taken over quite largely by the psychiatric social worker of the Kalamazoo State Hospital, whose duty it is to refer such cases who are in need of medical care to the clinic or return them to the hospital. In some of the clinics cases seeking advice are largely adults with border-line mental disorders, psychoneuroses and various nervous disorders, while in other clinics children predominate, especially those who are problem children either in the school or at home. Some of these we find to be definitely feeble minded, others psychoneurotic or psychopathic, and some become problems from lack of proper management.

There is no question that we are moving in the right direction when we put intensive study on the mental disorders of childhood. The earlier the so-called nervous children are taken in hand before wrong habits of thinking and acting have been established, the more likely are we to prevent definite mental disorders later. With this in mind we have undertaken as a part of our out-clinic work the survey of a number of schools in our hospital district for the purpose of selecting the nervous child. We will soon have information along this line on about 11,000 children between the ages of 5 and 11 years. After we know who the unstable children are we hope at least to make an effort to study the individual cases with the view of assisting them in making a more satisfactory adjustment to their environment. It seems that only by some such method as this, together with eugenic efforts, can we ever expect to stop the increasing number of insane.

We have examined in the four clinics 3,278 patients. Many of these have been low grade defectives and various cases of organic nervous disorders and chronic mental cases where there is little probability of doing much for them. We have, however, succeeded in educating the relatives of many of these cases in methods of caring for them and have thus kept quite a large percentage out of the State Hospitals who would otherwise have been committed, and thereby reduced the taxation to this extent. Our results in the acute cases must be reserved for comment at another time, suffice it to say at this time the results have justified the efforts expended.

OPIUM

The opium and the narcotic addict problem is engaging the attention of diplomats, legislators and social workers in general. It is a subject that has received much discussion and heretofore the profession has received the burden of the blame for causing addiction. The story has always been that the addict acquired the habit after a severe illness or injury when the attending doctor prescribed morphine over a period of time, thereby establishing the habit. From the evidence presented at the Geneva Conference it has been clearly demonstrated that the profession is not the guilty party or the agency that established the addict. The profession was exonerated.

And now comes a writer in *American Mercury,* who places the blame at the door of legislators and the passing of the Harrison law. We quote the following:

"How does a drug addict get started on his habit? Many believe it is commonly initiated by the therapeutic administration of opiates, causing a craving that persists long after the original malady has subsided. Nothing could be further from the truth. The drugs used by addicts are not employed in medicine in amounts that produce the characteristic effects, save in two legitimate instances—for severe pain, where even large doses expend their effect so completely that there is no excess to produce stimulation, and secondly, in the latter stages of torturing, incurable disease, where habit-producing is, of course, not to be thought of. How then, are we to account for the use of narcotics among so many young people? Almost invariably our offenders are boys and girls in their teens of early twenties, or if they are older, they admit having used drugs since youth.

"I believe that most drug addiction today is due directly to the Harrison Anti-Narcotic Act, which forbids the sale of narcotics without a physician's prescription. Prior to the passage of this act, there was a limited number of drug addicts who went to the corner druggist for their day's or week's supply. They paid a moderate price for the then legitimate article of sale, and the druggist, upheld by professional traditions that are only too often scoffed at, would no more dispense heroin or morphine to a curious adolescent than the old-time bartender would sell whisky to a child, especially since the profit was small and the temptation, therefore, not inordinate. But with the passage of the Harrison Act the old addicts were immediately shut off from their old source of

supply. The demand remained; the supply was almost nil. Following inevitable economic law, illicitly obtained drugs went sky-high, and the prototype of the bootlegger, the dope peddler, appeared upon the scene. In a few months, these men made fortunes that would be the envy of bootleggers. Sources were established abroad—even, it is whispered, with certain smug old pharmaceutical houses in this country. Bottles of cocaine, bearing the stamp of a Holland manufacturer, were soon circulating. Heroin was being sold on the street corners in 'dollar decks' containing a grain or two of the drug adulterated with several grains of sugar of milk. Now the vest pockets of the dope peddler are equivalent to the warehouses of the bootlegger. The latter is at the mercy of his customer, for there is nothing confidential in liquor; the man who buys brags of it and makes small secret of his source of supply. But the drug addict is not only a criminal in legal theory, but a criminal in court room fact, and the secrecy in which he uses his drugs acts as a cloak of protection for the peddler.

"Did the peddler but supply the old addicts and the former small annual number of recruits to narcotism, the worst of it would be the rise in prices that incites to crime. But having no professional ethics and with the law already against him, he has become the great disseminator of the habit. In the hang-outs of thieves, in the bawdy houses, even in the jails he offers 'happy dust' or 'snow' to the tyro in misdemeanor. Once a user, always a customer. In the same spirit in which a better class youth is urged to take a drink and be a man, the youth of the underworld is given a drug and valiantly strives to 'take his as steady as the next one.' Snow parties are the equivalent of flask parties. The foundation of all vice is curiosity. Every first time is an addition to life-experience.

"Addicts who are broke act as *egents provocateurs* for the peddlers, being rewarded by gifts of heroin or credit for supplies. The Harrison Act made the drug peddler, and the drug peddler makes drug addicts. So intimate is this association, so intricate is the relationship of user and supplier, that the courts, valiantly attempting to differentiate between the criminal sellers and their entangled victims, are nonplussed. The professional peddler is often a user, too. The user is often a peddler or peddler's agent."

Well, let the legislators ponder over this as well as over the Volstead law.

SUBSCRIPTION FOR THE WIDOW OF DR. B. D. HARISON

It was reported at the meeting of the Attending Staff of Grace Hospital, held December 16, 1924, that Dr. Harison left no estate and that his widow is in need of assistance. The following Committee was appointed to solicit subscriptions: Dr. J. B. Kennedy, Dr. F. A. Kelly, Dr. E. F. Collins.

Robt. Cowen	$10.00	Geo. C. Duggan	25.00
A. Fellman	10.00	L. A. Murray	5.00
A. J. Font	10.00	V. Droock	5.00
L. V. Hewitt	5.00	Abraham Bloch	5.00
J. G. Israel	10.00	Gerald Wilson	5.00
Bruce Anderson	10.00	Dale King	10.00
E. Gleason	5.00	W. E. Blodgett	25.00
I. H. Neff	5.00	H. Simons	5.00
W. W. McGregor	5.00	M. A. Darling	5.00
E. C. Hoff	5.00	G. B. Hoops	5.00
F. P. Mabee	5 00	Emil Sorock	10.00
R .E. Cumming	5.00	Nathaniel Ginsberg	10.00
L. C. M. Conley	5.00	Dr. Jenischen	5.00
Susan Sanderson	10.00	L. E. Pangburn	5.00
Geo. L. FeFevre	25.00	Howard Havers	5.00
B. H. Vollerstan	10.00	G. Waldeck	5.00
Earle McKenzie	10.00	F. Jilek	5.00
H. H. Diebel	10.00	O. W. Pickard	10.00
R. DeTomasi	10.00	Geo. W. Irwin	5.00
Myra E. Babcock	10.00	E. R. Breitenbacher	5.00
H. B. Steinbach	10.00	N. H. Goldberg	5.00
R. J. Palmer	25.00	J. Watkins	10.00
W. W. Babcock	5.00	W. A. Giffen	5.00
W. A. Briegel	10.00	Dr. Jarre	5.00
H. R. Hildebrandt	10.00	H. W. Hewitt	10.00
C. I. Owen	5.00	A. E. Schiller	10.00
F. W. Gottschalk	10.00	E. W. May	10.00
Geo. H. Palmerlee	10.00	G. H. Wood	5.00
L. F. C. Wendt	10.00	Dr. LaMarsh	5.00
Frank A. Weiser	5.00	Dr. Kay	5.00
S. H. Knight	10.00	C. C. McClelland	10.00
W. L. Babcock	20.00	C. W. Sellers	5.00
O. Ensing	10.00	R. H. Stevens	10.00
A. D. W. Kay	5.00	C. A. Paull	5.00
H. K. Shawan	10.00	R. L. Clark	5.00
P. H. Lippold	5.00	J. S. Kennedy	25.00
Harry S. Knight	5.00	Dr. Plaggemeyer	25.00
J. S. Asselin	10.00	Dr. Hull	15.00
Perry C. Gittins	5.00	Dr. McLean	10.00
H. H. Goldberg	10.00	J. A. Wall	10.00
Wm. Fowler	10.00	Geo. P. Myers	25.00
Voss Harrel	10.00	H. G. Bevington	10.00
J. A. Maloney	5.00	C. C. Wright	10.00
S. J. Eder	5.00	A. P. Ohlmacher	5.00
F. E. Curtis	2.00	H. A. Shafor	25.00
W. Y. Kennedy	5.00	Stuart Wilson	10.00
H A. Haggerty	5.00	F. A. Kelly	25.00
A. J. Neuman	5.00	R. L. Goux	25.00
M. C. Henry	5.00	R. A. Perkins	25.00
E. J. Tamblyn	5.00	J. A. Maunders	25.00
R. K. Johnson	5.00	L. A. Condit	5.00
A. L. Turner	10.00	F. H. Purcell	3.00
B. D. Parker	5.00	T. H. Henry	10.00
E. L. Robb	5.00	E. J. Collins	5.00
Chas. Root	2.00	W. G. Patterson	20.00
A. A. Newbarr	25.00	R. R. Goldstone	10.00
Z. I. Nairin	10.00	E. Amberg	15.00
C. H. Belknap	10.00	Dr. Cardil	5.00
John H. Slevin	10.00	Wm. Price	15.00
C. S. Kennedy	25.00	David H. Lewis	10.00
E. H. Hanna	10.00	STATE	
F. D. Newbarr	10.00	A. W. Hornbogen	$25.00
S. G. Myers	5.00	W. H. Sawyer	25.00
E. J. Bernstein	5.00	Chippewa-Luce Co. Society	100.00
R. Milton Richard	10.00	W. K. West	25.00
D. M. Clarke	10.00	J. A. Crowell	25.00
F. T. McCormick	5.00		

ANNUAL MEETING

The House of Delegates selected Muskegon as the place for the holding of our next Annual Meeting. The Council, with the advice of the profession of Muskegon, has designated September 8, 9 and 10 as the days upon which the meeting is to be held. We are assured of ample hotel accomodations and splendid auditoriums for exhibits and sessions.

On January 28th, the Chairmen and Secretaries of the several scientific sections held a meeting and discussed plans for the scientific program. Of late years there has been evidenced a growing desire for dry-clinics and clinical meetings. The Section Officers have determined that the Muskegon Meeting will feature that type of a program. In place of several sectional meetings all the sections will

combine for the Clinical meetings and demonstations. An auditorium that will seat a thousand people has been secured. It will be transformed into an amphitheatre so as to afford comfortable seats with unobstructed views and acoustic clearness. The Speakers will be selected by the Section officers and will cover the field of all the sections. Under this arrangement some twenty-five acknowledged clinicians will be able to address the members and conduct dry-clinics and demonstrations that will be of vital interest and instruction to every member.

We feel that this innovation will greatly stimulate the value of our annual meeting and arouse the interest of our members. Announcement of the program, speakers, entertainment and other features will be made from time to time, until September. Right now we want to be alert and plan to participate in what will be one of the most interesting annual sessions of our Society.

DUES

Members and County Secretaries are reminded of the provision of our By-Laws which prescribes that the membership dues for the current year must be paid by April 1st. The provision and ruling is also implicit that all those whose dues are unpaid on that date shall be placed upon the suspended list, The Journal discontinued and the protection of the Medico-Defense League withdrawn. We are eager that all members arrange to pay their dues to their local county Secretary before April 1st. Lest you forget, send your check today. During the past year two members were denied the protection of our Medico-Legal Committee because they permitted their membership to lapse for two months in 1924 and suit was later started for services that were rendered during the period of their suspension. You lay yourself liable to such an unfortunate situation if you permit your dues to lapse, for you do not know but what some patient whom you attend during that lapsed period may bring suit against you. You cannot afford to be without this protection. Send in your dues today and continue to remain in good standing.

MARION L. BURTON

In the death of Dr. Marion L. Burton, president of our State University, Michigan has sustained a grave loss. Education has been deprived of a master and leader. The nation has lost a man outstanding among men and our profession a friend and valued adviser. His place in our Society was that of a great illuminating orb, spreading warmth and light and his passing was a sunset in the noon of his day.

Dr. Burton possessed a dynamic personality and an intensity of spirit which, upon first contact, was not always easily understood. Animated by an almost supernatural aggressiveness, he was often far ahead of his followers, who frequently paused, then pondered, then admired and soon loved. His splendid qualities, his purposes and principles soon won for him the love and esteem of the whole commonwealth which recognized in him a wise councillor and a safe leader.

Dr. Burton was intensely interested in our profession, the achievements of scientific medicine, the welfare of our Medical Colleges, the advancement of modern medicine and the building up of public knowledge in regard to health and disease. In his busy life, he found time to meet and advise with us. He encouraged and aided us in our organization work, ever ready to further the aims and ideals of the medical men of this state. As Chairman of our Joint Committee on Public Health Education he did much and went far to foster that movement which he once stated was one of the greatest progressive undertakings that medicine had initiated. In all these relationships, these acactivities, these movements he was intensely and keenly interested. By his death we are deprived of a friend and advisor and we shall miss the inspiring impulse that urged us to carry on.

We extend, on behalf of our Officers and Members, to his wife and children, our sincerest sympathy. We mourn with them and assuage our grief and theirs with the memory that has so endeared Dr. Burton to us. Departed in form, his spirit will urge us on and as we seek to emulate the man we will continuously record our reverence and respect for him who is no longer one of us, but who has left a lasting record in our hearts.

THE JACKSON POST GRADUATE CONFERENCE

When the Post Graduate Conference at Jackson closed on the evening of February 19, all past records established by previous conferences were broken. The Michigan State Medical Society and the Second Councilor District composed of the Hillsdale, Jackson and Ingham County Medical Societies established a new record. This was not a record of race track fame or one that would cause world sensation like Nurmi the remarkable Finn. It was simply advancing the science of medicine a little further than it had been advanced before the record was made. This advance consisted in a better fellowship, a better understanding of the value of organization and the problems of the profession and an advance in knowledge as indicated by an attendance of one hundred twenty doctors from Ingham and Jackson counties. Likewise the general knowledge of the public was moved forward in that

two hundred and fifty prominent citizens of Jackson listened to the lectures that directly or indirectly affect the status of the personal health of every individual.

The Ingham and the Jackson County Medical Societies were most enthusiastic co-operators for the success of the Conference. Each gave publicity, made special announcements, wrote special letters and post cards and developed a personal interest on the part of the members of their respective societies. This is the type of work on the part of the County Medical Socities that means progress for the Science of Medicine.

And the relationship of the County Medical Society to the public must not be forgotten. It must be discovered. One of the prominent women at Jackson at a public meeting said, "Why, I didn't know that the doctors would give us lectures on health education, general knowledge of medicine and such subjects as the layman can understand." If this question has been asked at Jackson, is it not certain that the same question is in the mind of numberless people throughout the counties of Michigan—whether as frankly asked or not. It simply means that the Community Program of the County Medical Society has a job ahead, and that work can be begun at any time—the public is waiting.

If every County Medical Society with its ership will give 100 per cent support for the Post Graduate Conferences as have Jackson, Ingham, Bay, Grand Traverse, St. Clair, Lenawee and Berrien County Societies, all doubt as to what advance Scientific Medicine will make during this year may be dispelled. Progress of no mean import will have been recorded.

The program given at the Jackson conference was the following:

Opening statements by B. F. Greene, M. D., presiding, Councilor 2nd District. Executive Secretary Smith.

"Essential Fundamentals of Physical Examinations," by Elmer Eggleston, M. D., Battle Creek, Mich.

"Therapeutic Treatment of Heart Diseases," by M. A. Mortinson, M. D., Battle Creek, Mich.

"Fractures," Kellogg Speed, M. D., Chicago, Ill.

Intermission.

"Diagnosis of Gastric and Duodenal Ulcer," by Elmer Eggleston, M. D., Battle Creek, Mich.

"Rickets in Children," by Isaac Abt, M. D., Chicago, Ill.

"Toxin and Anti-Toxin," by Dr. George Ramsay, Lansing, Mich.

Dinner—Two fifteen minute talks.

"Insulin," by Hugo Freund, M. D., Detroit, Mich.

"Errors in Infant Feeding," by Isaac Abt, M. D., Chicago, Ill.

"Fractures of the Skull," by Kellogg Speed, M. D., Chicago, Ill.

"Hypertension," M. A. Mortinson, M. D., Battle Creek, Mich.

PUBLIC MEETINGS

Parent-Teachers' Association—Talk by J. B. Pritchard, M. D.

"The Physical Basis of Heredity," by G. Carl Huber, M. D.

DEAD OR ALIVE??

During the months of December, January and February the following County Medical Societies reported to the Journal of the State Medical Society:

Barry
Bay
Berrien
Calhoun
Clinton
Genesee
Gogebic
Houghton, Parry and Keewenaw
Ingham
Ionia
Gratiot
Gratiot
Jackson
Kalamazoo
Mecosta
Monroe
Muskegon
Oakland
St. Clair
Wayne

The County Societies not reporting are these:

Antrim, Charlevoix and Emmett
Branch
Cass
Cheboygan
Chippewa, Luce and Mackinac
Delta
Dickinson-Iron
Eaton
Grand Traverse-Leelanau
Huron
Kent
Lapeer
Lenawee
Macomb
Manistee
Mason
Menominee
Midland
Oceana
Otsego, Montmorency, Crawford, Oscoda, Roscommon, and Ogemaw.
Ontanagon
Osceola-Lake
Ottawa
Presque Isle
Saginaw
Sanilac
Schoolcraft
Shiwasse
St. Joseph
Wexford, Kalkaska and Missaukee
Tuscola
Washtenaw.

What shall be the decision of the Court of Medicine?

Editorial Comments

We didn't notice that any Chiros or other pseudo culturists were carried on any dog sleds when Nome's diphtheria epidemic was on and antitoxin ran out. We haven't noticed either that any "spinal thrusts" were provided for the several near small-pox epidemics that have invaded some of our cities. Neither have scientists called upon their practitioners for the giving of absent treatments. We cannot recall a single instance where a scientist or a chiro or any other cultist have saved a life, arrested the progress of any disease or eradicated the cause of any disease. We are not patting ourslves on the back when we record this fact, we are simply making a record for some of these birds to ponder over. We likewise hope that they will match that which scientific medi-

cine has accomplished before assuming to rant on in their dense ignorance.

A lasting refutation to any charge of self interest and a showing up of the commercial attitude of all cults would be a solid front of organized effort by our members to wipe out diphtheria in Michigan by the urging of toxin-antitoxin to all our patients. Here is a wonderful opportunity. It is also an obligation and a duty. We feel that every County Society should initiate this work in their county. It is recommended that this be undertaken at once.

Our congratulations are tendered to Dr. J. D. Bruce of Saginaw, who has been appointed by the Regents of the University of Michigan as Director of the Department of Medicine and Medical Director of the University Hospital. Dr. Bruce possesses the qualifications for this important office. His ability as an organizer will be evidenced in correlating the several departments of Internal Medicine. His high standing as a medical man will beget confidence and his professional experience will enable him to serve the institution and the profession in a most efficient manner. We are indeed very happy over the appointment which foretells a new era of medical activity and educational advancement for our state university.

Every progressive man must necessarily do a definite amount of reading. It is the only way by means of which he can keep abreast of modern progress. True, one becomes weary at times, by reason of continuous grind of medical articles and casts about for new literature or a new style. Thus is he inspired anew and his ideals, ambition and aggressiveness are enhanced. By way of suggestion we are calling attention to the history of our profession. Many of us have and continue to ignore the past. It is a wonderful past and an inspiring, fascinating record. Viewed in our present light there are many intensely dramatic incidents. One is missing much if he neglects to enlighten himself in regard to these historical medical episodes and events. There is much of pleasure and profit that awaits you. So we recommend as strongly as we can that you subscribe to the Annals of Medical History, a bi-monthly journal, that is devoted entirely to medical history and the lives of men who blazed the trail of medicine. You will profit thereby immensely.

The sincere sympathy of our members is tendered to our President, Dr. Clancy, in the sudden death of his only daughter. Her death occurred on February 2nd, from heart disease. While mere words will not assuage his sorrow, the assurance of our members of their appreciation of his loss will in a measure mitigate his grief.

We refer our readers to a very timely discussion of the presence of diphtheria in Michigan and the value of toxin-antitoxin that appears in our department on health in this issue. We commented upon the situation in our last issue. It is a problem and a responsibility that directly confronts the profession. We reiterate that as County Societies and as individuals, we must undertake the bringing about of a markedly lower diphtheria morbidity and mortality in our state.

The Ninth Annual Clinical Session of the American Congress on Internal Medicine will be held in Washington, D. C., March 9-14, 1925.

Washington clinicians and investigators of attainment will devote the entire session to amphitheatre and group clinics, ward "rounds," laboratory conferences, lectures, demonstrations of special apparatus and methods, and the exhibition of unusual scientific collections. Civilian and governmental services are united in the aim to make the week useful and memorable.

Practitioners and laboratory workers interested in the progress of scientific, clinical and research medicine are invited to take advantage of the opportunities afforded by this session.

Address inquiries to the Secretary-General, Wm. Gerry Morgan, President, Washington, D. C.

In due time we trust that some building, the finest on the University Campus, will be dedicated to the life, labors and memory of President Burton. In addition, when the new University Hospital is completed and opened for the reception of patients, we hope that our State Medical Society will cause to be placed therein a memorial tablet to President Burton in testimony to his interest and labor in behalf of scientific medicine. As a profession we owe that to his life.

Do you remember when you were a boy, how easy it was to coast down hill, and what an effort it was to get back to the top again? It is well you remember, because the experience ought to be worth something to you in your professional life. Keep from coasting down hill by attending your County Medical Society meetings.

After all is said and done, the problem of just medical legislation rests in the hands of your representatives in the legislature. Your State Society, through a splendid, active Legislative Committee, has performed its duties. The final result is dependent upon our individual members, the interest they manifest and the effectiveness with which members appeal to the judgment of their local senators and representatives. In some counties members are interviewing their legislative representatives. In a goodly number of counties they are not. That failure is the handicap of the State Committee. Interest that is statewide, work that is manifested in every county, is the only means of preventing adverse legislation. Don't place any blame upon the Committee if you fail to interview your local representatives at Lansing.

This is your last month of grace for the payment of your 1925 dues. Mail your check to your County Secretary today. Do not permit your membership to lapse, which places you upon the suspended list. Your County Secretary will mail your dues to the State Secretary and the State Secretary will send you your membership certificate. Remember that all members whose dues are unpaid by April 1st are in suspension.

There are several new advertisements in this issue. Our advertising section has been increasing in size. Some very representative firms are your patrons. Every advertiser that we carry is entitled to and merits your patronage. We assure you of satisfactory dealings and believe that your wants will be satisfactorily met by these business firms. Aid your Journal by demonstrating to these business houses that Journal advertising pays. To maintain this advertising revenue we require a whole-hearted support from our members and readers. Turn to this ad section and then make your purchases from these firms.

In the space devoted to "Among Our Letters" we have published several interesting communications. We want more. This is your column and is open to every

member for the purpose of expressing opinions and advancing ideas. It is your open forum. We want you to avail yourself of such an opportunity. In place of but two or three communications in each issue we would like to have some twenty or thirty letters from our members in different parts of the state. Yes, we will welcome criticisms as well as suggestions. We want to know what you are thinking about, what your problems are, the nature of your ambitions and your solutions of what should and should not be done. We want to hear about your success as well as failures and we want your helpful hints. So write.

The other day we were at a health clinic and these are some of the remarks gleaned from patients: "I have had my tonsils removed and the doctor said mine were the second worst pair of tonsils he had ever seen."—Hic! Another, "Doctor said I had bought the best life insurance policy when I paid him for removing my tonsils."—Hic! Hic!! Another, "I was in the operating room two hours and a half because my appendix was so bad, though I never had an acute attack."—Sic!! Hic!! One more, "When doctor operated on my mastoid he said he was only a tiny fraction of an inch from my brain."—Sic!! Hic!! Sic!! It's the handing out of such bunk that discredits doctors. Please tell us why some of you keep on doing it? It acts as a boomerang to yourself and any man is justified in appraising you as a "rotter" if you continue. Every county has one or more such egotists—well it's about time to show them up.

Read our County Society News. Secretaries are reporting splendid activities. If your Secretary wants assistance, there is where he can obtain suggestions.

Among Our Letters

NOTE.—*This department is the open forum of our members. Your communications and discussions are welcomed. Anonymous communications cannot be accepted, though at times names may be omitted by the Editor. Personalities will not be printed and responsibility for opinions is not assumed. We invite your interest in this department. Address: The Editor, Journal, Michigan State Medical Society, Powers Theatre Bldg., Grand Rapids, Mich.*

Editor of The Journal:

I saw your plea for case histories in The Journal. In response, am sending the enclosed on the chance that you might consider it of interest to some of your readers.

Yours very truly,

C. B. Mandeville.

AN UNUSUAL MASTOID

This case was a boy, 8 years old, and was first seen February 24, 1924. At this time the patient complained of slight pain over the left mastoid, temperature 101 3/10. The ear drum showed no bulging or redness. The tenderness was so slightly greater on the left side that it was attributed more to nervousness than to disease.

Past History—Tonsillectomy in 1920. Earache and discharge from left ear in 1921. Chickenpox and measles in 1923.

Present History—About Feb. 1st while playing, patient struck his head against an iron railing. Some swelling followed that soon disappeared. A few days later he had a "cold" and complained of earache off and on. On Feb. 23, when the family physician saw him, he had a temperature of 102 6/10 with some vomiting (not projectile) and dizziness. Left mastoid a little sensitive. Positive Kernig's sign. No nystagmus or falling.

A period of waiting was advised. The patient improved until March 3rd, when the mother noticed swelling behind the ear. When the ear was examined on this occasion, the drum was found to be inflamed and bulging and when incised, exuded some pus. X-ray was obtained which showed an apparently involved area on the left side.

In view of this peculiar history of mastoid tenderness followed by otitis media and influenced by the X-ray report, it was decided to do an immediate operation.

On incision of the skin in the usual place a small amount of pus was found between the periosteum and the bone. No perforation of the mastoid cortex was found. On removal of the cortex, the mastoid cells did not seem to be necrotic, being quite firm in resistance to the curette. Wishing to find the source of the subperiosteal pus, the posterior flap was retracted and pus was found issuing from the emissary vein opening in spurts. The cortical removal was extended backward and, as the bone was removed from over the lateral sinus, a large amount of pus began to issue. The opening was enlarged and fully two ounces of pus was evacuated from this area. The covering of the lateral sinus was apparently normal so it was not opened.

On opening the mastoid antrum a very small amount of pus was found. After thoroughly cleaning out the mastoid process, the cavity was packed with iodoform gause and the incision closed with one end of the gause extending through the lower end of the incision as a drain. The patient made an uneventful recovery. The unusual feature of this case lies in the history of mastoid pain first, followed by otitis media, and further complicated by the perisinus abscess. Whether the otitis media of three years before or whether an infected thrombus was the cause of this abscess, it would be difficult to say definitely. Probably the old otitis media left an infected focus which was desseminated by the blow of the iron pipe.

C. B. Mandeville

93 W. Western Ave.,

Muskegon, Mich.

Editor of The Journal:

Under editorial comments of the December issue of The Journal, the last paragraph raises the question, "Are diseased tonsils the primal factor of pathological diseases that have been credited to them, and asks, will some one rise up and give the real facts?"

My purpose in sending in this brief note is to call the attention of those particularly interested to two articles on this subject:

(1) "The Pathology of the Tonsil," by James E. Davis, of Detroit, Mich., published in Annals of Otology, Rhinology and Laryngology, September, 1924.

(2) "Effect of Tonsillectomy on General Health in Five Thousand Children," by Albert D. Kaiser, of Rochester, N. Y., published in Journal A. M. A., page 1869, June 17, 1922.

These two presentations on the subject of tonsil pathology give jointly, in my opinion, the most comprehensive summing up of the subject yet presented. G. Van Amber Brown.

A MICHIGAN HOME FOR PHYSICIANS

Editor of The Journal:

The medical dues for 1925 have been raised to the sum of $10 per member. Thus far in the program of the Society's affairs, the medical defense has been the only direct point of contact between the Society and each member. That this is a vital issue none can deny. It is a practical endeavor to assist the physician in a given emergency which may arise and affect any physician in the exercise of his daily tasks, be he ever so careful; yet even here very few medical men rely entirely upon the Society's legal aid, but are paying each year for a medical defense policy in some company.

With the dues for the present year at the amount before mentioned, some high ideals are presented and much co-operation promised. Just how practical remains to be seen.

Thus far there has been no objection to the dues being raised. None are intended or suggested here. We do believe, however, that the Medical Society should go just a little bit further. Take a portion of the dues or raise them one dollar higher and let this be placed in a fund to be controlled by the officers of the State Society. This fund to be eventually used for the purpose of establishing a Michigan Home for members of the Society who, in the sunset of life, because of financial reverses, accident or any of the misfortunes to which all are subjected be not the objects of charity, but be welcomed into a home which they might feel they had helped to erect for themselves.

To prove that this is not a vague issue, but a practical suggestion, we might mention that in the state of New York some one left a fund of five thousand dollars to be used for the establishment of such a home. When the doctor who was appointed as supervisor had purchased such a place, he was amazed to find that some of the applicants for admission were men who had at one time been among the most prominent physicians of the state, and they had not room enough to accommodate all who were eligible and who applied for admission.

It is hoped that the Kent County Medical Society may take the initiative in this matter, and perhaps some one who is able, may give a tract of land near the city that is suitable for such a purpose. If not, may some other county grasp the opportunity. In any event a healthy discussion of the subject is invited.

Eugene S. Browning, M. D.
Grand Rapids, Mich.

Adrian, Mich., February 13, 1925.

Editor of The Journal of the Michigan State Medical Society:

The District Post-graduate Medical Conference met at this place February 12, 1925, and the following program was carried out, Dr. C. D. Darling presiding.

"Bronchitis and Pneumonia," J. L. Chester, Detroit.

"Interpretation of erve Reflexes," C. D. Camp, Ann Arbor.

"Acute Retention and Prostatic Cystitis," I. L. Loree, M. D., Ann Arbor.

"Acute Intestinal Obstruction," C. D. Darling, M. D., Ann Arbor.

"Mentality Tests," C. D. Camp, M. D.

"Modern Obstetrics," G. A. Kamperman, Detroit.

"Treatment of Acute Head Injuries," C. D. Darling.

"Principles of Infant Feeding," T. B. Cooley, M. D., Detroit.

"Hypertension," J. L. Chester.

"Toxin and Antitoxin," G. R. Ramsey, M. D., State Board of Health.

"Pre-Natal Care," G. A. Kamperman, M. D.

"Treatment of Diabetic Coma," P. L. Marsh, Ann Arbor.

Dr. Clark of the Detroit College of Medicine and Surgery, addressed the high school students on germs.

Dr. Chester read a paper at a lay meeting in the evening. His subject was, "Foods in Health and Disease."

About fifty physicians attended the Conference, which included Monroe, Washtenaw and Lenawee Counties. The meeting was a great success.

A. W. Chase, M. D.,
Secretary.

State News Notes

COLLECTIONS

Physicians' Bills and Hospital Accounts collected anywhere in Michigan. H. C. VanAken, Lawyer, 309 Post Building, Battle Creek, Michigan. Reference any Bank in Battle Creek.

NURSES' **private home, invites convalescents and invalids; best of care, fine location. R. Rs. N. Y. C. and Interurban; best of references given. For particulars write Bessie Bileth, 566 Ely Street, Allegan, Mich.**

WANTED: Salaried Appointments for Class A Physicians in all branches of the Medical Profession. Let us put you in touch with the best man for your opening. Our nation-wide connections enable us to give superior service. Aznoe's National Physicians' Exchange, 30 North Michigan, Chicago. Established 1896. Member The Chicago Association of Commerce.

A PRACTICAL course in Standardized Physiotherapy, under auspices of Biophysical Research Dept. of Victor X-Ray Corporation, is now available to physicians. Offers a highly practical knowledge of all the fundamental principles that go to make up the standards of modern scientific physiotherapeutic work. Course requires one week's time. For further information apply to J. F. Wainwright, Registrar, 236 So. Robey St., Chicago, Ill.

Dr. R. J. Hutchinson, Grand Rapids, is spending several weeks in Los Angeles, California.

Dr. J. D. Bruce, Saginaw, is spending several weeks in California.

Dr. A. D. LaFerte spent two weeks at Miami during February.

Dr. and Mrs. George E. McKean spent a month on the East coast of Florida during February.

Dr. H. S. Collisi was operated on for acute appendicitis at Butterworth Hospital, Grand Rapids, on February 7th.

Dr. W. J. DuBois, Grand Rapids, has resumed practice after an operation for acute appendicitis in January.

Dr. and Mrs. Ira G. Downer are being congratulated on the birth of a boy, Ira George, Jr., on January 25th, 1925.

Dr. Clark W. Behn announces the location of his office at 1665 David Whitney Building, Detroit. Dr. Behn is limiting his practice to Dermatology and Syphilology.

Dr. Harry B. Dibble, of Detroit, was married to Miss Virginia Rice, of Detroit, on February 19, 1925. Dr. and Mrs. Dibble spent their honeymoon at Bermuda.

Dr. Palmer E. Sutton has opened his office for the practice of Medicine and Surgery at Suite 213, Royal Oak Savings Bank Building, Royal Oak, Mich.

Dr. T. P. Clifford, of Detroit, was elected to membership in the Detroit Boat Club at the February meeting of the Board of Directors of the Club.

Dr. Walter R. Parker, who was ill with pneumonia in the early part of January, has returned from a trip to Arizona, much improved in health again.

Dr. Richard L. Sutton of Kansas City, was a recent guest of the Department of Dermatology at the University of Michigan. During his stay here, Dr. Sutton delivered a public illustrated lecture on "An African Lion Hunt."

Dr. Don M. Howell has returned from a period of six months in Vienna and has opened his office at 753 David Whitney Building, of Detroit. Dr. Howell limits his work to Eye, Ear, Nose and Throat Diseases.

Dr. Carleton J. Marinus announces the reopening of the offices of the late Dr. T. A. McGraw, Jr., for the continuation of the treatment of diseases of the Endocrine Glands at 1044 David Whitney Building.

Dr. Udo J. Wile of the Department of Dermatology, University of Michigan, has been elected honorary member of the Italian Society of Dermatology and Syphilology and corresponding member of both Danish and French Society of Dermatology and Syphilology.

The members of the Calhoun County Medical Society have elected Dr. Lloyd E. Verity of Battle Creek to fulfill the duties of Secretary-Treasurer. Dr. Theodore L. Squier, former secretary, has removed to Milwaukee, Wisconsin, causing a vacancy in the chair.

Dr. John Sundwall of the Department of Hygiene and Public Health, University of Michigan, addressed the annual conference of the Pennsylvania Tuberculosis Society at Pittsburgh on January 20th on the subject of "The Inter-Relationships Between the Voluntary Health Organizations and the Public Health Agencies."

Dr. B. R. Corbus, Grand Rapids, has been appointed chief of staff of Butterworth Hospital. F. C. Warnshuis is vice-chief, A. J. Baker, chief of medical service; G. L. McBride, chief of surgical service; J. R. Rogers, chief of eye, ear, nose and throat service; F. J. Larned, chief of pediatric service; H. S. Collisi, chief of obstetrical service, and G. H. Southwick, chief of out-patient department.

The Alumni Association of the Detroit College of Medicine & Surgery held their second annual Mid-Winter Clinic at Receiving Hospital, Detroit, on Wednesday, January 21, followed by a dinner at the Wolverine Hotel at which Dr. Hamman, Dean of Western Reserve Medicine School, was the guest of honor.

Dr. Alfred S. Warthin of the Department of Pathology of the University of Michigan, has delivered the following lectures during the past month: "Psychologic Causes of Disease," in Kalamazoo on January 28th; "Pathology of Latent Syphilis," before the Terre Haute Academy of Medicine, on February 5th; the same address before the Peoria Academy of Medicine, on February 17th.

At the recent dedication of the University of Colorado Medical School and Hospital, Dean Hugh Cabot of the Medical School, University of Michigan, delivered an address on "The Development of Organized Clinical Teaching." He then proceeded to Portland, Oregon, as one of the speakers of the Sectional Meeting of the College of Surgeons. His subjects were, "Tuberculosis of the Kidney," and "Stone in the Ureter."

A NEW DIET FOR PEPTIC ULCER

Warren Coleman, New York (Journal A. M. A., September 20, 1924), reviews the various diets that have been proposed for the treatment of gastric ulcer, points out their faults and proposes a new diet. This diet consists only of olive oil or butter fat, white of egg, glucose, salt and water. The white of egg and fats and a moderate quantity of water are given by mouth; the glucose and salt are given in solution by rectum. In order to secure complete rest for the stomach, only water is permitted by mouth for several days. In the earlier part of the treatment, both in the preliminary period and after feeding by mouth is begun, the patient does not receive the amount of food he needs; but when the totals of the various foods have been reached, the nutritive requirements of the body are completely covered. Thus: Five ounces (150 c.c.) of olive oil (or about 6 ounces [180 gm.] of butter) furnish approximately 1,400 calories. The whites of eight eggs contain 33 gm. of protein (5 gm. of nitrogen), and furnish 135 calories. Four ounces (120 gm.) of glucose furnish 480 calories. Eight grams of salt will prevent loss of chlorin from the body. On such a plan, the stomach may be given absolute rest for from three to five days. The foods given by mouth inhibit the gastric secretion and reduce gastric motility to a minimum; the surface of the ulcer is protected by a coating of fat for a considerable portion of each day. The diet has been in continuous use for twelve years, and the results have proved satisfactory. Gastric distress quickly subsides after treatment is begun; it may disappear on the first day, and is nearly always gone by the third day. All patients lose weight in the earlier part of the treatment because the amount of food is insufficient to cover their nutritive requirements. The extent of the loss depends on the length of time occupied in reaching the desired totals. Consequently, after feeding by mouth is begun, the food should be increased as rapidly as the stomach can take care of it. Usually, the lost weight is recovered before the patient is ready to leave the bed. If the loss of weight in any patient appears dangerously rapid, the diet should at once be modified by the addition of suitable quantities of cream and whole eggs to prevent further loss. Loss of weight will be greater if thirst is not controlled.

Our Society Business and Activities

HARVEY GEORGE SMITH

EXECUTIVE SECRETARY

NOTE: This Department will each month contain a discussion and report of our Society work and planned activities. Your interest and correspondence as to your problems is solicited.

RESPONSIBILITIES OF THE PHYSICIAN

Responsibility changes with the times. The nomad of pre-historic times could not measure responsibility with the civilian of today. The Egyptian slave could not have understood the responsibility of the freedman of the Twentieth century. The medieval peasant knew nothing of the responsibility of property ownership. And, likewise, the physician of fifty years ago looked upon his profession as an agency of restoration rather than as a medium of prevention.

More than any single factor in the community is the physician responsible for its health. Yet, he cannot be a propagandist. He cannot go about and sell his wares or cry them from the housetops. He cannot intrude or insinuate either his personality or his knowledge in the public affairs of the community of which he is a part. The mocking cry of "wolf" greets him whenever and wherever his active interest in the health of his community savors of having a definite relation to his own interest. The business of being a physician is, fortunately or unfortunately, restricted by established ethics which are necessary to sustain the cultural refinement of his profession.

But a physician cannot stand by and see the health of his community jeopardized. He cannot shut his eyes to destroying influences, to fake and quack cures, to misleading and sinister propaganda. Yet, he is responsible. He is as much responsible as if the men, women and children of his community were a part of his own family, his own flesh and blood. He is often in the position of a helpless father who can do nothing with a wayward son, because communities become wayward in the care of their health.

What, then, should he do?

Every responsibility must find expression. The physician's responsibility for the health of his community can find expression in his contact with that community. If he merely sits back of his shingle and waits for the sore throats to whisper into his ears their tales of woe, he has no contact with the community. But if he gets out and becomes an organic part of the community itself, takes an interest in something besides sore throats, he attracts to himself not only the natural confidence of the community, but its respect as well.

The day is past when a man need know only one thing to be called a success. It used to be fashionable for a doctor to say he didn't know anything about law, or art, or baseball. But that day is gone. Communities have become intercommunal. Every one must know something about what everyone else knows, or he is going to lag behind the procession.

Community contact is one of the firmest stepping stones to success. It is also one of the safest channels toward the fulfilment of the doctor's responsibility for the health of the community. He cannot know what is going on, what the community needs and what he is expected to do about it unless he is an active, aggressive part of the community itself. That means he must have personality. We all have personalities, sometimes good and sometimes not so good. But they have been given us for some useful purpose, and, like the elephant's trunk can be put to numerous uses.

Get in touch with your community and learn what it wants. The doctor and his community are indispensible to one another. The community must be educated to look to the physician as being something more than an anatomical fireman, with his office as a theraputic police station. Get in touch with your community and learn what are your responsibilities and then act.

THE POST-GRADUATE MEDICAL CONFERENCE

That the membership of County and State Medical Societies is in favor of the Post Graduate Medical Conferences and that these conferences give something of actual value to the physicians who attend, is evidenced by what the physicians themselves say. These are some of the statements made at the conferences:

"These conferences are giving us programs that we have wanted for a long time."

"The State Society in arranging such programs is advancing the Medical profession in a most excellent manner."

"For the first time are we having programs that in any way approach those of the "Tri-State."

"I don't know when I have spent such a valuable day."

"All the lectures were good and the speakers told us things we wanted to know in a way that we could understand. They were practical."

"We are ready to pay our increases in dues if we can have programs like these at the Post Graduate Medical Conferences.".

The speakers at the Conferences have repeatedly expressed themselves on the value of the New Program of the State Medical Society: The following are some of their statements:

"I have never spoken before a more interested group of doctors."

"I hope the doctors got as much from the conference as I did."

"I didn't know what you meant by a Post-Graduate Medical Conference, but I thought I would take a chance and agree to come. Now that I know what they are like I certainly am for them and hope they continue."

"The holding of these conferences is the biggest thing that the State Medical Society has undertaken."

These are just a few of the remarks that have been heard from the doctors attending the conferences and from the speakers who have given the lectures. In all the six conferences not a single destructive criticism has been made.

THE BAY CITY CONFERENCE

The Bay City Post-Graduate Conference was held on January 22, 1925. One hundred fifteen doctors from several counties of Northern Michigan attended the meetings. They came from as far north as Alpena County and to the south from Genesee County. At the dinner in the evening one hundred doctors were present. The Bay County Medical Conference was host for all visiting doctors. This was an inovation in the regular conference programs, and proved to be a successful venture. This conference was the largest held thus far. Dr. Fred S. Baird, Councilor for the Tenth District says the following about the conference: "The Post-Graduate Medical Conference held in Bay City was a decided success from the standpoint of numbers present and the interest shown by the visitors. From every side we have been congratulated for the excellence of our program. The State Society is really doing something now for the members and as time goes on we will undoubtedly improve on our methods of reaching the doctor.

"It is a big thing to ask the lecturers to come long distances and give their time for these courses and we should feel very grateful to them. But they at least have the consolation of knowing that they are doing a great good to the medical men of the State."

The Bay City Conference was a noticeable success due to the energy and enthusiasm and the desires of the Bay County Medical Society to help make it successful. Every officer was at work and the program committee held two special meetings in order that all that was possible might be done by the local society. One of the outstanding features of the program was the evening public meeting which was attended by four hundred laymen. W. D. Henderson, Ph. D., gave his famous lecture on "Health and Superstition.

THE ADRIAN CONFERENCE

On February 12, 1925, the sixth Post-Graduate Medical Conference was held at Adrian, Mich. Sixty doctors attended the meetings which began at 10:30 in the morning and continued to 5:30 in the evening. At 6 o'clock the attending physicians met in an informal dinner. Physicians from Monroe, Washtenaw and Lenawa Counties and several from the State of Ohio attended the Conference. The meetings began promptly and every speaker took the time alloted to him and no more, thus showing full respect for the following lecturer and for the audience. A number of the physicians said they had never seen such clock-like precision in the giving of lectures as at this conference. This promptness and exactness on the part of the speakers put zest into the conference so that when the last lecturer finished the unanimous feeling was that the program should continue even longer. Twelve different subjects had been discussed by seven speakers.

Following the scientific program, at 8 o'clock in the evening, a public meeting was held for the purpose of giving the laymen of Adrian an opportunity to learn of the physicians work, and how responsible each member of society is for his own health and welfare. The subject of the lecture was: "Food in Health and Disease."

At the noon hour a lecture was given at the Adrian High School on the germ theory of disease, by H. L. Clark, M. D., of Detroit College of Medicine. The Public Schools are always interested in having a good speaker on health subjects inform the student of his relationship to his own health and the health of others.

The Lenawee County Medical Society through its officers secured the co-operation of the schools, the Women's Clubs, the Parent-Teachers Associations and the churches. These organizations sponsor the advancement of knowledge and are always ready to lend their unlimited support to any organization which is interested in advancing the understanding, the education and specifically the health of the city and the country.

THE MEMBERSHIP AND THE OFFICERS OF THE COUNTY MEDICAL SOCIETY

"We have elected you officers and have paid our dues, now go ahead, but don't bother us until next year,' is the feeling that some members have toward their County Medical Societies. "Let the officers do the work," they say, "they have been elected for that purpose and why shouldn't they do all the work for all of us. If we have a chance to put responsibility on some one else let's do it." Such an attitude only reminds one of the trite old saying, "A chain is no stronger than its weakest link." The officers may be the strong links and they should be, but if they have a half-hearted, supporting membership, one that does not attend meetings, one that never makes a suggestion to the officers for the betterment of the Society and one that never speaks a word of appreciation to the officers, such a membership is the weakest of weak links. Again, there are members who come to meetings because of duty and not of privilege, interest, enthusiasm or a deep desire to see the art and science of medicine advanced for their own good. Here too, every such member is a weak link in the County Medical Society as well as in his State Society. No! there must be progress and that progress must come by an active, interested, enthusiastic, friendly, working membership, a supporting membership for the officers, and a supporting membership for the Art and Science of Medicine which can come only through good workmanship in organized societies.

The officers of every society have a full right to delegate duties and allocate responsibilities and it is only as they fulfill their just duties can they expect to have the society over which they have been elected to preside, accomplish its purposes. To delegate and to allocate are two things; but to fulfill the duties and responsibilities involved make for progress, the success of County Medical Societies.

The Secretary, without a doubt, is the mainspring of every Medical Society and yet he should not be expected to do all the errands, send out notices, make up the program, see that meetings are held regularly, secure the signatures to petitions or fulfill the requests made upon him by his State Society. Whenever any member or committee is asked to do something for the County or State Society, members should remember that there is no personal interest involved on the part of the Secretary. It is for the general good of all participating physicians directly, first, last and all the time. If the Secretary or the Officers have suggestions to offer, it is because they are trying to fulfill their duties. They have spent much time thinking over their job and they want the Society to which they have been elected to give their leadership, to move forward. The Secretary, the officers or the committee cannot pull up their peg and move it forward during any part or the whole of the year without a pushing and pulling membership. That means, put money into your Society, put work into your Society. Give of your time, advice and energy to your officers, for your Society and finally for your own welfare. This is the way. There are no exceptions. And the exception does not prove the rule, but makes for an inefficient medical society and an unsatisfying profession.

THE BAY COUNTY MEDICAL SOCIETY

The Bay County Medical Society is an outstanding organization in the State Medical Society. It has a hundred per cent membership of all practising physicians within its borders. The success of the Society is attributed to its live program committee. Fred S. Baird, Councilor for the Tenth District. quotes as follows: "The life of any medical society is dependent on the program committee. If the committee always puts over good meetings and always secures good speakers then the society is a successful one. In our society we aim to have not only speakers in our own science, but also speakers who can broaden our knowledge in other activities. Thus we have speakers representing the professions of law, education, engineering and others. In order to have a good program committee it is vital that the work be enjoyable. So with us the committee meets every two weeks to enjoy a good feed and cheer; and at the same time discuss business and arrange for good meetings."

Here is evidence of what a medical society can do and how it can make its program one that directly affects the profession of each member in a scientific way and one that affects the relationship of each physician with his community and finally one that advances the science and art of medicine.

Deaths

Following an operation, Dr. Mabel E. Collins, (nee Campbell), 201 Howard street, Saginaw, Mich., died at St. Mary's Hospital, Saginaw, January 5th, 1925. Dr. Collins was a daughter of the late Dr. John Campbell of Saginaw.

County Society News

WAYNE COUNTY

The year 1925 started with unusual enthusiasm marked by the transfusion of fresh blood by a number of new applications for membership and also by an unprecedented attendance at the weekly Monday night clinical meetings. The first program of the year, on January 5th, was in charge of the staff of St. Mary's Hospital, in furtherance of a plan which the Program Committee has been following this year of having members of the staff of each hospital deliver a symposium or series of papers to be limited in their time and given on the same evening. Like those that have gone before the program was excellent and run off with commendable dispatch. The papers by title were:

"Gastric Ulcer," Wm. Cassidy, M. D.; Traumatic Brain Abscess," Leo Dretzka, M. D.; "Neurology of Brain Abscess," H. A. Reye, M. D.; "Cystoscopic Examination," A. Kersten, M. D.; "The Effect of Vagus Pressure on Heart Rate and Rhythm," Walter J. Wilson, M. D.

This was followed the ensuing week at the meeting of the Medical Section by a symposium incorporating the various phases of Pathology, Symptomatology, and treatment of Pneumonia, by Drs. Geo. L. Waldbott, C. F. McClintic, Bruce C. Lockwood, and George E. McKean. Being a subject of wide general interest it was intensively discussed and much of practical value was forthcoming.

Monday evening, January 19th, brought a program of new technique for Blood Transfusion, (a modification of the Unger Method) described by Dr. Osborne A. Brines, with "Indications for the use of Transfusion of Unmodified Blood" by Dr. Alex. A. Blain.

The last meeting of the month was marked by the visit of Doctors Charles H. Mayo and Henry S. Plummer of the Mayo Foundation, who, as the 1925 choice for the Beaumont Lectures, spoke on diseases of the Thyroid Gland, Dr. Mayo tracing, on Monday evening, the historical aspects of its development and function, and Dr. Plummer. on Tuesday morning and evening, outlining "Methods of Diagnosis of Various Types of Goitre and Modes of Treatment." The combination made a decidedly worth-while expenditure of two days time and was also very satisfactorily attended by members, not only of our own local Society, but our Canadian neighbors and adjacent county societies as well.

Richard M. McKean, M. D., Secretary.

INGHAM COUNTY

Ingham County Medical Society met at a noon luncheon meeting at Hotel Downey Grill January 9, 1925, 65 members being present.

The meeting was called to order by Dr. Wight, President.

The minutes of the last meeting were read. A motion was made and supported that they be accepted. Carried.

Dr. Wight introduced Mr. Harvey G. Smith of Grand Rapids, the Executive Secretary of the State Medical Society, as the speaker of the day.

Mr. Smith opened his talk with a very interesting resume of the historical development of medicine.

He mentioned the high development of the lay mind in Bulgaria and described the celebration of Pasteur's birthday throughout that country. He suggested that there should be some recognition of the great medical scientists by the laymen of our country.

He also brought out the fact that commercialism in medicine should be done away with and the major aim of the profession be Service to Humanity.

He next described what the State Society has planned for the future. There will be a series of post-graduate medical conferences held, at least one and perhaps two for each Councillor District. These will be in the way of Diagnostic Clinics and co-operation will be obtained from the churches, schools, P. T. Associations, etc.

He also advised that the State Society would like a report of each meeting of the County Society throughout the year, emphasizing improvements in our organization and what type of work we are doing as a Society.

He mentioned the necessity of co-operation between the members of the Society and the Program Committee. He also suggested that we formulate our program to be of enlightenment to the layman as well as the doctors.

He emphasized the necessity of co-operation between himself and the members of the Society.

He also emphasized the fact that disputes and disagreements between doctors on medical questions should not be brought to the attention of the public as it immediately puts medical science in retrogression.

Dr. Wight next called upon Dr. Davey to report the progress of the Legislative Committee.

Dr. Davey reported favorably, but said it was too early to give out any definite information.

The petition for membership of Dr. W. H. Witter of East Lansing was read to the Society and a motion was made and supported that it be placed in the hands of the Executive Committee. Carried.

Dr. Rockwell as chairman of the Program Committee, asked for the co-operation of the members of the Society with his work, making a special request for suggestions as to speakers desired for the meetings. He also suggested the possibility of having a meeting during the year, when each member should bring a layman as a guest.

A motion was made and supported that the meeting be adjourned. Carried.

Horace L. French, Secretary.

A meeting of the Ingham County Medical Society was held at St. Lawrence Hospital, January 30, 1925, at 8.00 p. m. The meeting was called to order by the President Dr. Wight.

The minutes of the last meeting were read. A correction was made by Dr. Victor Huntley, after which a motion was made that the minutes be accepted. Supported and carried.

A petition, sent to the Society by Mr. Smith, the Executive Secretary of the State Society, with a request that it be circulated among the prominent business and professional men of the city and their signatures obtained if possible, was read. The petition referred to the promotion of Anti-quack legislation in the present legislature and was to be returned to Mr. Smith by February 7 for presentation to the State Legislature. A motion was made and supported that the circulation and signing of the petition be taken care of by the President and Secretary. Carried.

The meeting was turned over to Dr. Rockwell, the Chairman of the Program Committee, who introduced Dr. Vander Slice and Dr. Fred Huntley as the speakers. Dr. Vander Slice gave a very

instructive paper on the Diagnosis of pulmonary T. B. in the adult.

Dr. Huntley followed this, with an interesting description of the X-ray diagnosis of pulmonary T. B.

The papers were discussed by Doctors DeVries, Crissey, Kahn, Rockwell, Toles and French.

A petition was presented by Dr. Freeland, relative to the collection of doctors bills, incurred in the last sickness of an individual, whereby it would be possible to make an adjustment of the claim, before the expiration of the time allotted for the probation of the estate. A motion was made and supported that the matter be referred to the Legislative Committee. Carried.

An announcement was made concerning the meeting of the second Councillor District, which is to be held in Jackson, February 19, 1925.

Motion for adjournment. Supported and carried.

A meeting of Ingham County Medical Society was held at St. Lawrence Hospital, February 5, 1925. The meeting was called to order at 8:10 p. m. by the President, Dr. Wright, 60 men attending.

The reading of the minutes of the last meeting was omitted at the suggestion of the President.

Dr. Rockwell, as Chairman of the Program Committee, was given charge of the meeting. Dr. Rockwell first introduced Dr. Howard Cummings of Ann Arbor. Dr. Cummings gave a very interesting and instructive talk on, "Some Advancements in the Practice of Obstetrics." The members manifested great interest in the paper, and questions were asked and the talk discussed by Doctors Brucker, Drolette, Dutt, Rockwell, Peacock, Seger, Faust, Wiley and Crissey.

Dr. Rockwell next introduced Dr. Loree, also of Ann Arbor, who presented an interesting discertation on "Retention in Fibromata of the Prostate." The talk was discussed by Doctors Carr, Cushman, Davey, Hart of St. Johns, McNamara, Crissey and Gardner.

On behalf of the Ingham County Medical Society, the President, Dr. Wight, extended to the speakers of the evening, a vote of appreciation.

Meeting adjourned.

Horace L. French, Secretary.

COMMITTEES

LIBRARY

One Year—
A. Owen ..... 5th Floor Bauch Bldg.
L. G. Christian ..... 807 Bauch Bldg.

Two Years—
J. E. McIntyre, Chairman ..... 1200½ S. Washington Ave.
M. Shaw ..... 802-4 Bauch Bldg.

Three Years—
S. Osborn ..... 201-5 City National Bank
R. M. Olin ..... 6th Floor State Bldg.

ENTERTAINMENT

Harry A. Haze, Chairman ..... 123½ S. Washington Ave.
R. E. Miller ..... 300-4 Tussing Bldg.
C. V. Russell ..... 432 S. Washington Ave.
J. G. Rulison ..... 205-6 Am. State Savvings Bank
Fred M. Huntley ..... 307 Am. St. Savings Bank
J. Earl McIntyre ..... 1200½ S. Washington Ave.
F. J. Drolette ..... 900-3 Prudden Bldg.
L. W. Toles ..... 544 Cap. Nat. Bank
S. Osborn ..... 201-5 City Nat. Bank
F. A. Jones ..... 123 W. Allegan

MUSIC

Dr. Harold Miller ..... Tussing Bldg.
E. H. Faust ..... Cap. Nat. Bank
H. L. French ..... 619 N. Washington Ave.

EXECUTIVE

M. L. Holm, Chairman ..... 303-9 Tussing Bldg.
A. Owen ..... 5th Floor Bauch Bldg.
J. Earl McIntyre ..... 1200½ S. Washington Ave.

PROGRAM

Howard Rockwell, Chairman ..... 412 Amer. St. Sav. Bank
E. I. Carr ..... Medical Bldg.
Karl Brucker ..... 305-6 United Bldg.
H. B. Weinburg ..... 709 Amer. St. Sav. Bank
Wm. Welch ..... 432 S. Washington Ave.
F. J. Cushman ..... 221 N. Capitol Ave.
H. W. Wiley ..... Medical Bldg.

MEDICO-LEGAL

H. S. Bartholomew, Chairman ..... 311-13 Amer. St. Sav. Bk.
R. H. Crissey ..... 619 N. Washington Ave.
C. B. Gardner ..... 376-80 Cap. Nat. Bank
E. H. Foust ..... 552 Cap. Nat. Bank

LEGISLATIVE

B. M. Davey, Chairman ..... 221 N. Capitol Ave.
L. W. Toles ..... 554 Cap. Nat. Bank
O. H. Bruegal ..... 124½ W. Grand, E. Lansing
Victor Huntley ..... 1318½ S. Washington Ave.

PUBLIC HEALTH

R. M. Olin, Chairman ..... 6th Floor State Bldg.
G. H. Ramsey ..... Dept. Com'r. Mich. Dept. Health
S. R Hill ..... Room 25, City Hall
E. R. VanderSlice ..... 415-416 City Nat. Bank
M. L. Holm ..... 303-9 Tussing Bldg.

WELFARE

M. Shaw, Chairman ..... 802-4 Bauch Bldg.
A. M. Campbell ..... 206 Wilson Bldg.
Ray McCrumb ..... 523 Tussing Bldg.
E. G. McConnell ..... 203 Bauch Bldg.

ETHICS

C. B. Gardner, Chairman ..... 376-80 Cap. Nat. Bank
L. C. Towne ..... Medical Bldg.
L. H. Darling ..... 107½ S. Penn. Ave.
F. M. Huntley ..... 307 Am. St. Sav Bank

ADVISORY

O H. Freeland, Chairman ..... Mason, Mich.
E. E. Larabee ..... Williamston, Mich.
Frank Turner ..... 200½ E. Franklin Ave.
Dr. Yerkes ..... Mason, Mich.

GENESEE COUNTY

Genesee County Medical Society met for noon luncheon in Hotel Dresden, January 21st, 1925.

Mr. Harvey Smith, Executive Secretary, Michigan State Medical Society, gave an interesting address. His subject was, "Problems of the State and County Medical Societies."

The Society met for noon luncheon in Hotel Dresden, February 4th, 1925.

Dr. Loucks, Radiologist of Detroit, Michigan, was the speaker. His subject was, "Radium in Gynecology."

January 30th, 1925, the Clinton Medical Society met at the St. Johns Hospital, St. Johns, Michigan. Dr. William Marshall of Flint, Michigan, talked on "Tuberculosis in Childhood." Dr. H. Randall, Flint, Michigan, talked on "Intestinal Obstruction." Dr. Max Burnell, Flint, Michigan, talked on "Intra-cranial Injuries in the New-born."

G. J. Curry, Secretary.

HOUGHTON COUNTY

The Houghton County Medical Society held its regular monthly meeting at the Scott Hotel, Tuesday, February 3rd., at 8:30 p. m., with sixteen members present.

After the reading of the minutes the usual bills were allowed: the applications of Dr. E. Bicknell of Calumet, and Dr. W. H. Ellis of Hancock, having been acted upon favorably by the Board of Censors, were balloted upon and they were admitted to membership in the Society.

Dr. W. P. Scott, of Houghton, read a very interesting paper on "Infantile Tetany." Dr. Scott's paper showed much study of this problem and he presented several cases from his own practice. A very free discussion of this paper was indulged in

by those present. The second paper of the evening was read by Dr. Alfred LaBine of Houghton on "Post-Operative Biliary Fistula." He presented a number of his own private cases and gave some very interesting data from the Mayo Clinic and the operative technique and difficulties encountered following operation were thoroughly reviewed by him. This paper was both interesting and instructive and was fully discussed by those present.

The petition which was received from the Legislative Committee of the Michigan State Medical Society was indorsed by those present and steps were taken to get in communication with the senator and representatives from this district.

The necessity of early payment of the dues was emphasized by the Secretary and the majority of those present responded by paying their dues. The Society then adjourned to a very fine lunch served by the Scott Hotel.

G. C. Stewart, Secretary.

MARQUETTE-ALGER COUNTY

The annual meeting of the Marquette-Alger County Medical Society was held at the Hotel Clifton, Marquette, on Friday night, January 23, 1925.

A dinner was served in honor of Dr. H. S. Smith of Ishpeming, one of the charter members of the Society, who is moving to Cudahy, Wisconsin.

Dr. A. W. Hornbogen made the delegate's report on the State Society and dealt especially upon the necessity of the increase in dues to $10 and the employment of a full time secretary.

Upon resolution the dues to the County Society were raised to $5, and each member was assessed $2 for the Harison Fund.

Dr. A. K. Bennett read a paper, "Observations Upon Industrial Medicine and Surgery."

Councilor Burke outlined the clinics which the State Society contemplates holding the ensuing year.

The following officers were elected for the ensuing year:

President, A. K. Bennett; Vice President, J. D. Crane; Secretary-Treasurer, H. J. Hornbogen; Delegate, A. W. Hornbogen; Alternate, L. W. Howe.

Our Society is especially proud of the high percentage of membership—only two eligible physicians in Marquette and Alger Counties having failed to respond to the call for membership.

The average attendance of members at meetings for year of 1924 was 77 per cent.

H. J. Hornbogen, Secretary.

CLINTON COUNTY

The monthly meeting of the Clinton County Medical Society was held at the offices of Doctors Hart, Hart, Luton and Foo, at St. Johns, Mich. on January 29, 1925, at 6 p. m.

After a very splendid chicken dinner given by Doctors A. O. Hart and Eugene Hart, the meeting of the Society was called to order by the President, Dr. W. M. Taylor of Ovid. The minutes of the previous meeting which was held on November 2, 1924, were read and approved.

The periodic health examination of children and adults as well by the county physicians in co-operation with the staff of The Michigan Tuberculosis Association in an effort to suppress tuberculosis in the State of Michigan, were discussed in the business meeting. As there was no further business to be taken up, the meeting was turned ever to the Chairman of the Program Committee, Dr. A. O. Hart, who requested Dr. W. M. Taylor, the president, to preside.

The first paper, entitled, "Intracranial Hemorrhage in the New Born," was very comprehensively handled by Dr. Max Burnell of Flint, and discussed from its various viewpoints by other physicians present. Dr. Max Burnell brought out the importance of knowing the essential facts to correct obstetrics in order to avoid any possible chances of producing an intracranial hemorrhage, which may very easily occur in an extremely rapid delivery or in the unusually protracted cases, where the labor has been exceptionally prolonged. In either case there is great danger of intracranial hemorrhage from the excessive and prolonged moulding of the fetal head to conform with the contour of its passages.

Another important point that Dr. Burnell brought out in his paper is the danger of forceful resuscitation in cases of apparent asphyxiation, which could be very much more safely relieved by use of tracheal catherter.

The next paper, entitled "Tuberculosis in Children," was very comprehensively covered and ably delivered by Dr. Wm. Marshall of Flint. He mentioned the various stages of the disease as being similar to the three stages of syphilis in its clinical manifestations. He concluded by uring the county physicians to instill the importance of periodic health examinations into the minds of laymen.

Another very interesting and instructive paper entitled "Diagnosis of Intestinal Obstruction," was delivered by Dr. H. E. Randall of Flint. This paper was also very thoroughly discussed in its various phases.

Some cases from the St. Johns Hospital were demonstrated to the visiting physicians, amongst which was a case of fractures of both femurs in an adult. Treatment of this case consisted of extension by using pins passing through the condyles of both femurs. Radiographs of this case were shown next, showing the results of the fractures at different stages of callus formation, and subsequent union.

A motion was then made and supported that the meeting be adjourned. Motion carried.

Thos. Y. Ho, M. D., Secretary.

ALPENA COUNTY

The Alpena County Medical Society held its regular monthly meeting at the New Alpena House on January 15th, 1925. Dr. Cameron and Dr. McDaniels were hosts at the 6 o'clock dinner.

The scientific program and business meeting was adjourned to Monday, January 19th, at 8:30 p. m., at the home of Dr. Cameron, in order that all members might be present. Dr. F. J. O'Donnell read a paper on the "Surgical Diagnosis of the Acute Abdomen." This paper was a resume of the various acute surgical lesions of the abdomen, their symptomatology and diagnosis. Dr. John Jackson read a paper on "Focal Infections of the Teeth and the General Symptoms that Might Be Caused Thereby." Both papers were enthusiastically discussed by the members present. Dr. S. T. Bell, the newly elected president of the society, gave his Inaugural Address in which he made a plea for medical harmony. Moved by Dr. O'Donnell, supported by Dr. Cameron that the ad-

dress be spread at length upon the minutes and the recommendations concurred in. Carried. The applications of three new members was then read. Moved by Dr. McDaniels, supported by Dr. Jackson that the rules be suspended and these three admitted to membership. Carried, unanimously.

The preliminary arrangements of the program committee for a post graduate medical conference to be held in Alpena on March 19th were approved. C. M. Williams, Secretary.

GRATIOT-ISABELLA-CLARE COUNTY

The January meeting of the Gratiot-Isabella-Clare County Medical Society was held with the 9th District Dental Society in the Park House in St. Louis, Thursday, January 22, 1925. Doctors Lyons and Richert of the University Dental School pere present.

Dr. Lyons gave a very interesting talk with lantern pictures on Cleft palate. After this we all repaired to the dining room, where many good resolutions were broken. When it comes to working in the dining room I think the Dents can beat the Doctors a mile.

After this, those who were able to get away from the table, (some of the dents had to be lifted) returned to the hall and listened to Dr. Richert talk on "Fecal Infections." Some may think they know all about Fecal infections; after hearing Dr. Richert they will think there is still something to learn. All together, we had a real profitable meeting; good fellowship, good eats and good talks.

E. M. Highfield, Secretary.

TRI-COUNTY

At the last meeting of the Tri-County Medical Society, the following officers were elected:

President, Dr. John F. Gruber; 1st Vice President, Dr. S. C. Moore; 2nd Vice President, Dr. J. Doudna; Secretary-Treasurer, Dr. W. Joe Smith; State Delegate, Dr. W. Joe Smith; Alternate, Dr. P. W. Bloxom; Program Committee, Dr. W. Joe Smith, Dr. G. D. Miller, Dr. P. W. Bloxom; Finance Committee, Dr. J. M. Wardell, Dr. O. L. Ricker, Dr. W. Joe Smith; Medical Legal Committee, Dr. G. D. Miller, Dr. J. M. Wardell; Contract Committee, Dr. O. L. Ricker, Dr. S. C. Moore.

As our check for County work is not paid until about the 10th of April, our dues will be late reaching you. Enclosed find check for $10 for 1925 dues for Dr. Schuyler Bush, of Cadillac.

W. Joe Smith, M. D., Secretary.

ST. CLAIR COUNTY

At the recent annual meeting of the St. Clair County Medical Society, the following officers were elected for the year 1925:

President, Dr. T. H. Cooper; Vice President, Dr. George Waters; Secretary-Treasurer, Dr. Howard O. Brush. Dr. T. H. Heavenrich was appointed as delegate to the next State Convention and Dr. A. L. Calley as alternate.

On Wednesday evening, January 21, the St. Clair County Medical Society tendered a banquet to three of their eldest practicing physicians, namely, Dr. G. S. Ney, Dr. C. B. Stockwell, and Dr. Geo. Smith. The meeting was very well attended, about forty members being present.

Howard O. Brush, Secretary.

HILLSDALE COUNTY

The Annual Meeting of the Hillsdale County Medical Society was held at Hillsdale on Tuesday, January 20, at 8 p. m., the Vice President, Dr. Bechtol, in the chair. After the reading of the minutes, Dr. W. H. Sawyer gave a most thoughtful and impressive address on "The Responsibility of the Medical Profession." The speaker called attention to the dwindling ranks of the Profession and the reluctance of young men to undertake the arduous and expensive task of acquiring a medical education, and especially to their refusal to settle for practice in small towns or even small cities. He pointed out the great need of devising some means by which the mass of people in such localities could be furnished their adequate medical service without degrading the profession, or pauperizing the people. Dr. Sawyer also spoke of the increase in cults and fads, charged the belief of the public in them largely to the reticence of the profession and its neglect to bring the truth of all matters medical to them. He made an earnest plea for the physicians of the country and state to give these important questions earnest and constructive thought, to the end that they may be answered in the best manner.

Discussion was opened by Dr. Greene, followed by general discussion in which Dr. Sawyer's address was warmly approved, all feeling that the address proved, if proof were needed, that we have no need to go outside of our own membership for valuable and interesting addresses and papers.

The Society then elected its officers for the year, resulting as follows: President, Dr. J. H. Johnson; Vice President, Dr. H. C. Miller; Secretary-Treasurer, Dr. D. W. Fenton; Dr. T. H. E. Bell was elected delegate to the State Medical Society, with Dr. Fenton as alternate.

Dr. Green, Councilor for this district, spoke of the District Conference to be held February 19, at Jackson, and urged all members who can, to be present.

The circular letter to the profession from the Gorgas Memorial Institute, was read by the Secretary and after discussion, it was moved, supported and carried that the subject be laid on the table until the next regular meeting.

It was then moved, supported and carried that the Secretary be instructed to invite the physicians of Branch County to join us at our next regular meeting in April. After the approval of a bill from the secretary for incidental expenses, the society adjourned. D. W. Fenton, Secretary.

OAKLAND COUNTY

I wish to report our meeting held February 5th, at the Chinese Tea Garden, Pontiac. Twenty members attended. We were addressed by Dr. Cecil Striker, Department of Internal Medicine, University Hospital. His subject was, "Tolerance Developed by Diabetics," which we enjoyed.

The Library Committee reported and requested that $50 be given for Medical Journal, etc., which was done. Dr. R. Y. Ferguson was appointed to act as historian for the Society to collaborate with the Library Committee.

A letter was read from Dr. Burr, of Flint, Michigan, in favor of the establishment of capital punishment for criminals. The Oakland County Society passed a resolution endorsing the letter.

We expect to have our next meeting February 27th. Leon F. Cobb, Secretary.

GOGEBIC COUNTY

The following is the report of the regular February meeting of the Gogebic County Medical Society:

The regular monthly meeting of the Gogebic County Medical Society was held at Grand View Hospital, Ironwood, Friday evening, February 13th. Nine members were present. Dr. Draper read a paper on "Breath Sounds," which was discussed by various members.

M. J. Lieberthal,
Secretary.

Among the Books

A Review and Frank Appraisal of Medical Books That are Proffered to the Profession by Publishers.

AN AFRICAN HOLIDAY. Richard L. Suton, M. D. Price $2.25. C. V. Mosby Company, St. Louis, Mo.

Many books on Africa have been written, but few authors have presented the subject in so graphic and concise a manner as Dr. Sutton. A writer of wide experience and a scientist of international reputation, he has grasped the salient points and emphasized the important features in a way that is bound to appeal to every educated reader.

From the foreword to the final chapter, the story is absorbingly interesting, and, withal, so simply and admirably set down, that children as well as adults will enjoy its every detail.

OPERATIVE SURGERY: J. Shelton Horsley, M. D. Second edition; 666 illustrations. C. V. Mosby Company, St. Louis, Mo. Price $12.50.

This is a splendid text on operative surgery that emphasizes constructive, conserving technic with every attention to physiological end results. It is clear in diction, sound in principle and void of non-essentials. Important procedures are well illustrated. It is a welcome text to our surgical literature and one that merits every confidence.

INFECTION, IMMUNITY AND INFLAMMATION. F. B. Gurd, McGill University. C. V. Mosby Company, St. Louis, Mo. Price $5.00.

A study of the phenomena of hypersensitiveness and tolerance and their relationship to the clinical study, prophylaxis and treatment of disease.

THE DIAGNOSIS OF CHILDREN'S DISEASES. Prof Dr. Freer, Zurich, translated by C. A. Scherever, M. D. J B. Lippincott Company.

The first English edition of the third English edition of the original text. It is entirely confined to diagnosis.

A TEXT-BOOK OF PHYSIOLOGY FOR MEDICAL STUDENTS AND PHYSICIANS. William H. Howell, Ph. D., M. D., Professor of Physiology in the School of Hygiene and Public Health, Johns Hopkins University, Baltimore. Ninth Edition, thoroughly revised. Octavo of 1069 pages, 308 illustrations. Cloth, $6.50. W. B. Saunders Company, Philadelphia and London.

A revised ninth edition that is wholly abreast of progress made and void of the obsolete. Practical, lucid and simple. A text that many, if not all, physicians should secure to refresh and renew their views on normal physiology. Principles have changed, new light is evidenced since your college days.

THE CRIPPLED HAND AND ARM.Carl Beck, M. D. 302 illustrations. J. B. Lippincott Company.

This is a monograph on the various types of deformities of the hand and arm as a result of abnormal development, injuries and disease. It sets forth methods of corrective treatment of infections. Sound, practical and a safe guide for general practitioners.

FRACTURES AND DISLOCATIONS. P. D. Wilson, M. D., Howard Medical School and W. A. Cochraul, University of Edinburgh. 978 illustrations. J. B. Lippincott Company.

A splendid text on fractures and dislocations based upon the experiences of the fracture service of the Massachusetts General Hospital. It thus becomes a valued guide and imparts numerous methods and procedures that tend toward securing ideal results in fractures. A text that should be in the hands of every surgeon and every doctor who attends patients presenting fractures or dislocations.

DIPHTHERIA MORTALITY IN THE LARGE CITIES OF THE UNITED STATES

With the aim of bringing the diphtheria situation in American cities to general attention and in the hope that methods found available for reducing diphtheria in one locality may be made familiar and be utilized in others, The Journal has undertaken an annual general survey of diphtheria mortality in American cities of more than 100,000 inhabitants, similar to the typhoid surveys published for several years past. The sixty-eight cities included in the survey are those having a population of more than 100,000 at the time of the U. S. Census of 1920 (fourteenth census). The diphtheria death rates have been calculated on the basis of the population estimates of the U. S. Bureau of the Census, where these are available. The cities in the New England states have, for the most part, rather high diphtheria rates, the highest rate in any American city being registered in a city in this group (Fall River). Hartford is the only one of the eleven New England cities to show a continuous decline in diphtheria for each quinquennium since 1890, although Cambridge and Bridgeport have records substantially as good. Two cities (Fall River and New Bedford) have higher diphtheria death rates for the four years, 1920-1923 than for the preceding quinquennium. The cities of the Middle Atlantic states have also for the most part relatively high diphtheria rates, seven of the fifteen cities having average rates of 20.0 or over for the four years 1920-1923, and only one (Trenton) an average rate below 10.0. New York City makes a remarkable showing in this group, maintaining a continuous decline throughout the thirty-year period, the percentage decline in the last four years being especially notable. Jersey City and Newark also show a steady diminution in each quinquennium for this period. Philadelphia, in which diphtheria seems to have been surprisingly high in the last decade of the nineteenth century, has likewise achieved a steady improvement comparable with that of New York. For shorter periods, Scranton, Trenton and Camden have maintained uniform progress in the direction of lower rates. Some cities, however, in this group have not had so satisfactory an experience. Several cities (Rochester, Syracuse, Albany, Buffalo, Paterson, Yonkers and Reading) recorded a higher average diphtheria for the last four years (1920-1923) than they did in the quinquennium 1915-1919, Syracuse and Buffalo especially, apparently, being considerably worse off in the proportion of diphtheria deaths than they were twenty years earlier.

The cities in the South Atlantic states show at the present time relatively low diphtheria death rates, although in the decade 1890-1899 both Baltimore and Washington were apparently more severely affected than Syracuse and Buffalo. Baltimore is the only city in this group to show uniform progress in the direction of a lower diphtheria rate. The 1920-1923 diphtheria rate in Richmond was considerably higher than for either of the two preceding quinquenniums, and in Atlanta the 1920-1923 rate was the highest for the whole thirty-four year period. Like the Middle Atlantic states, the cities of the East North Central states have relatively high diphtheria rates, although there are some conditions that are difficult to understand, such as the disparity for the last decade between the rates in the two Lake cities of Milwaukee and Detroit. Cincinnati is the only city in this division to show uniform progress from quinquennium to quinquennium. Two Ohio cities (Columbus and Dayton) have had for ten years a consistently low average, but two others (Toledo and Youngstown) had much more diphtheria for 1920-1923 than in the preceding five years. The cities of the East South Central states have had relatively low rates during nearly all the period covered by our figures. Both Louisville and Nashville, however, have apparently experienced a progressive increase in diphtheria deaths since 1910. The cities in the West North Central states have not much to boast of in their diphtheria mortality. Diphtheria in Omaha is apparently about as much of a menace as it was at any time in the last twenty-five years. Since 1905, the diphtheria rate in Minneapolis has averaged less in each quinquennium than the rate in the neighboring city of St. Paul, the divergence in the years 1920-1923 being particularly marked. In St. Louis, diphtheria has apparently remained at about the same level for twenty years, although during this period the rate in Philadelphia has been cut in two and in New York City reduced in still greater proportion. The cities in the West South Central states have relatively low rates, but Dallac and San Antonio have apparently not made much progress in twenty years in reducing their diphtheria mortality. New Orleans, which had a very high rate from 1890 to 1894, has now one of the lowest rates in the country. Fort Worth is apparently the only city in this country with more than 100,000 population to have no record of diphtheria deaths, certainly an oversight in sanitary bookkeeping. The two cities in the Mountain states (Salt Lake City and Denver) show rather astonishing fluctuations in their quinquennial averages, Salt Lake City having a lower average from 1895 to 1899 than any but one of the following five-year periods. Denver had an average diphtheria rate for 1920-1923 that was higher than any of the three preceding averages. The cities on the Pacific Coast also show considerable fluctuations. There was evidently an excessive prevalence of diphtheria in the Pacific states from 1920 to 1923, all seven cities showing higher rates than for the preceding period. In most of the Pacific coast cities, diphtheria seems still an important problem. Seattle, however, has had consistently low rates for fifteen years. In comparing the cities with the highest and lowest diphtheria death rates in 1920-1923, it is evident that in this period the diphtheria mortality was considerably lower in the cities in the southern states. This difference is also evident throughout the period covered by our statistics, and is a reversal of the condition shown in typhoid fever, a disease that affects disproportionately the Southern cities. It is manifest that the Northern cities will have to make relatively greater effort than the Southern cities to overcome the climatic disadvantage from which they suffer in respect to diphtheria. The steadily progressive decline in diphtheria mortality shown by a few Northern cities in the last thirty-four years is all the more noteworthy. The remarkable record made by New York City in combating diphtheria may well serve as an object lesson to the rest of the country. Epoch-making as a discovery of diphtheria antitoxin has been, it would not be legitimate to consider the difference between the 1890-1894 and the 1920-1923 diphtheria mortality as wholly a "saving of life" due to antitoxin treatment. It is impossible, however, to withhold from diphtheria antitoxin credit for the major share in the amazing improvement in diphtheria death rates. The tabulated quinquennial averages bring out clearly, perhaps nearly as well as if the data for individual years were used, the occurrence of more or less localized epidemics of diphtheria. It is plain, for example, that several cities on the Pacific Coast were much more severely stricken by diphtheria in 1920-1923 than in the preceding decade.. Denver was also afflicted to an unusual degree during this period, the diphtheria rates in that city being about six to eight times as high in 1920 (23.2) and (14.8) as in 1915 (3.4) and 1916 (1.7). On the other hand, Springfield, Mass., had a rate of 52.9 in 1917 and 16.9 in 1921, while Chicago, which had a rate of 47.8 in 1917, had only 22.9 in 1919. In a general way, the period 1915-1919 was characterized by relatively increased rates in the New England cities, and the period 1920-1923 by higher rates in the Pacific and Mountain states. In 1915-1919, five of the eleven New England cities had a higher rate than in the preceding quinquennium, but in 1920-1923 all but two showed a decrease, as against 1915-1919; in eight Mountain and Pacific cities, this condition was reversed: only two showed an increase in 1915-1919 over the preceding quinquennium, but seven of the eight showed an increase for 1920-1923 as compared with 1915-1919. While the extreme fluctuations in diphtheria mortality observed prior to 1895 have not occurred in recent years, the existence of more or less pronounced epidemics is still apparent. In the period since 1910, the decline in the diphtheria rate for the registration area of the United States (from 21.4 in 1910 to 17.7 in 1921) has not been nearly so great as the decline in the typhoid rate (from 23.5 in 1910 to 9.0 in 1921). The improvement in the typhoid rate has been brought about chiefly, if not wholly, by methods of preventing infection. For diphtheria we now possess a method of prevention and a means of cure, both of demonstrated effectiveness. A marked reduction in diphtheria mortality in the United States can undoubtedly be achieved in the next ten years by suitably directed organized effort.

PRIMARY CARCINOMA (EPITHELIOMA) OF THE URETER

Albert M. Crane and Homer J. Knickerbocker, Geneva, N. Y. (Journal A. M. A., June 14, 1924), report the twenty-ninth case of this kind. Hematuria was the outstanding symptom. The patient was not in pain except just prior to her entrance to the hospital, at which time there was difficulty in urinating, wtih pain in the bladder. After she passed several clots, the pain as well as the hematuria disappeared. A complete nephrourectomy was done. Examination of the growth in the ureter showed it to be a mucous membrane epithelioma (carcinoma), with no evidence of metastasis in either the kidney or the ureter above it. The patient made an excellent recovery.

The Journal
OF THE
Michigan State Medical Society
ISSUED MONTHLY UNDER THE DIRECTION OF THE COUNCIL
Vol. XXIV. GRAND RAPIDS, MICH., APRIL, 1925 No. 4

Original Articles

ORGANOTHERAPY IN HYPOPITUITARY DISTURBANCES

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DETROIT, MICH.

While it is probably true, as Billing stated, that but two hormonic substances have been isolated, namely thyroxin and insulin, it does not necessarily follow that clinical experimentation with other glandular products is illogical or wholly devoid of resuts. It is an established fact that excellent results were obtained with dessicated thyroid and that dessicated thyroid is still being used as a specific substitution even though thyroxin is available. Frequently the work of enthusiasts counterbalanced by skeptic and conservatives leads to further investigation and ultimate results. If one or two discoveries as the above are brought in the near future, due to the recent wave in popularity in endocrinological fields, all hyperenthusiasm will have served its end.

I have been particularly interested the past three years in hyposecretory disfunctions of the pituitary. Before citing specific cases I will outline, briefly, the origin and physiology of this gland. Embryologically it is derived from two entirely dffierent tissues. The anterior lobe arises from the epithelial pouch of Rathke and the posterior portion from the diencephalon. The anterior portion is made up of neurological tissue, the posterior portion and the pars intermedia of chromaffin tissue. It is fairly well established that the anterior lobe regulates the skeletal growth, the function and the development of the gonads and secondary sex characteristics. The posterior lobe assists in regulating carbohydrate metabolism such as glycosuria, hypoglycemia, sugar tolerance and obesity, and in the contractions of unstriped muscles in such organs as the uterus and intestines. It also influences renal secretion, blood pressure and body temperature.

There is at present no satisfactory classification of the various dyscrasias either from a histopathological or symptomatic basis. Cushing, Folta and Englebach each classify them differently and are satisfied in their own minds that further investigation will alter them materally. This is due to the dual character of the gland and its necessary relation with the entire endocrinous system. The symptomatology, especially the chief complaint of a person suffering from hyposecretion, is very variable ranging from menstrual disturbances to epileptiform seizures. The diagnosis or rather grouping under specific endocrine types presents very little difficulty due to the fact that either before or after maturity there has been some hormonic imbalance which is demonstrated in such patent characteristics as height, weight, stature and even temperament. This being the case, we must not allow our eagerness to make diagnoses from an endocrinous viewpoint and cause us to overlook some serious organic or other functional trouble.

In outlining the symptomatology no attempt is made to differentiate the anterior lobe deficiencies from those of the posterior. Some investigators believe that pure anterior or posterior lobe disfunctions do not exist. It is true that most cases overlap. Hyperfunction frequently changes into hypofunction, and hyperfunction of one and hypofunction of another may co-exist. However, the question is to determine from the existing symptomatology as to which gland or portion of gland is altered in function at that time in order to rationally treat the patient and procure results. Some of the most important diagnostic signs are as follows:

1. Family history, demonstrating type signs.
2. Early menstrual disturbance.
   (a) With complete insufficiency of anterior lobe menses may not appear.
   (b) With incomplete insufficiency of anterior lobe cessation of menstruation takes place for months.
3. Anterior lobe.
   (a) Underdevelopment of genitalia and secondary sex characteristics.
4. Skeletal system.
   (a) Stimulating hormones of long and short bones are absent, as a result we have short, stocky individuals.
   (b) The upper measurement from vertex to symphysis is greater than from symphysis to soles of feet.
   (c) Span shorter than height.
   (d) Tendency to small head, though in proportion to rest of body.
   (e) Nose: Small throughout, Grecian type, with perfect nostrils.

(g) Teeth: Well-developed with perfect occlusion, unless secondary cessation of menses, then a tendency to enlargement of upper incisors.
(h) Hands and feet: Small enpetite type, narrow wrists and short tapering fingers.

5. X-ray: Small, short tapering fingers and short nasal bone.
6. Basal metabolism not constant.
7. Sugar tolerance usually increased.
8. Other symptoms referable to organs and systems.
(a) Recurring and persistent migrains, usually affecting the eyes.
(b) Occasional vomiting related to the menstrual week.
(c) Mentally the pituitary child differs from the hypothyroid, is frequently precarious, ambitious, energetic and sensitive.
(d) Tendency to resist infections.
(e) Obesity: Characteristic distribution of fat pads, such as pelvic girdle and pectoral girdle, mons and mammary padding.

The following cases are chosen because of the diversity of the chief complaint:

Case No. 1. Posterior lobe insufficiency. Preadolescent type.

Miss E. A., April 1923. Age 9 years.

Chief complaint: Obesity. Onset at 6 years. At 7 years there was an evident abnormal obesity. Dietary precautions were of no avail. Weight at time of observation, 119 pounds.

History of development: Normal delivery. Weight at birth, 5 pounds. Dentition, walking and talking at normal period. Play life and associations normal. Tendency to precocity at school.

Family history: Father and mother both fall into pituitary types. Father tends to hyper with suggestive prognathism, large frame and tufting of fingers. Mother hypo with girdle obesity. No other children.

Physical examination: Height, 54 inches. Vertex to symphysis 29 inches. Symphysis to soles 25 inches. Span 53 inches. There is a slight tendency to scleroderma, marked pelvic and pectoral girdle adiposity with hypogastric, mons and mammary padding. External genitalia well-developed, a few pubic and axillary hair present. The normal lines and contour of the body are lost because of marked obesity.

Treatment: She was placed on pituitrin intramuscularly, thyroid and pituitary body by mouth. In September her weight was 88 younds. She then was sent to boarding school and therapy by mouth was continued. The following Christmas her weight was 94 pounds. At the termination of the school year her weight was 100 pounds and she was again placed on treatment. Even with the gain in weight, part of which is normal, the configuration of the body is now normal and as she states she does not look like a "tub" and is not ridiculed by her schoolmates.

Case No. 2. So-called pituitary hibernation or somnolence. Thyro-pituitary insufficiency, bilobar involvement.

Mrs. J. D., age 28 years.

Chief complaint: Somnolence and obesity. Came on three years ago and became progressively worse. Unable to sew, read or entertain because of drowsiness. Coincident with this a marked gain of weight. Weight at marriage ten years ago was 140 pounds. Present weight, 219 pounds. Eight pounds at birth. Talked and walked at 2 years. No juvenile adiposity. Menses at 12 years, regular but scanty. One pregnancy, living child of 6.

Physical examination. Span 64 inches. Height 66 inches. Symphysis to vertex 34 inches. Symphysis to soles 34 inches. Hands not typical, though the palm is relatively broad with long fingers. There is dorsal padding of the fingers and cuffing of wrists and ankles. There is pelvic and pectoral girdle type of obesity. Some chin, supraclavicular and posterior cervical padding.

Treatment: She was placed on therapeutic doses of pituitrin intramuscularly and Thyroid. She was also given pituitary body (whole gland) by mouth. This patient was given as high as 45 minims of pituitrin without any ill effects. At the end of one month patient's weight had dropped to 205 pounds; her somnolence was very much better. She was then placed on a low caloric diet, because she was not satisfied with the above. At the end of February her weight was 185 pounds. She then discontinued all treatment and her weight went back to 205 pounds and with it a return of all symptoms. She is at present under treatment, the past two months, with no dietary restrictions. Weight is now 190 pounds and there is a general improvement of all the other symptoms.

Case No. 3. Pituitary amenorrhea. Thyro-pituitary with bilobar involvement, postadolescent.

Mrs. P., age 26 years. First seen in 1922. At this time her endocrine picture was not appreciated.

Chief complaint: Amenorrhea. Her menses occurred at intervals of three to six months in the past four years. Onset was at 14 years, regular twenty-eight-day type, duration 3 to 4 days. Coincident with amenorrhea patient began to grow fat, weight at 18 years 115 pounds, between 20 and 21 years she gained 50 pounds. She was placed on Thyroid by mouth and ovarian extract intramuscularly. There was no change in the menses although she lost about ten pounds. She was dissatisfied and I did not see her for some time, when she came in asking for a letter which would admit her to the University Hospital. She remained there for a few days, and returned with the diagnosis of general endocrine dyscrasia. May, 1923, she was placed on pituitrin, antuitrin and Thyroid by mouth and pituitrin intramuscularly. July, August and September she has had normal three-day periods. October period lasted one day with dysmenorrhea, November, December and January three-day periods, and a loss of five pounds in weight. Since then she has stopped treatment. Was last seen in May, 1924. Her periods are again becoming irregular. She has missed three months. Believevd she was pregnant, but examination revealed no pregnancy.

Case No. 4. Posterior lobe insufficiency, postadolescent.

Mrs. U., age 58 years.

Chief complaint: Nervousness, polyuria, obesity. Obesity came on after menopause at 46 years. As a young girl was slender. Weight increased considerably after first child. At 46 years weight was 175 pounds. Present weight, 265 pounds. Polyuria and pollakiuria very troublesome the past year. First noted three years ago. Output varies from 2000 to 2800 cc. Persistent low specific gravity 1.004-1.008. Thirst pronounced.

Physical examination: Height 65 inches. Vertex to symphysis 62 inches. Symphysis to soles 63 inches. Span 30 inches. Classical pituitary facies, small hans and feet. Extreme obesity. Hypogastric padding hangs below mons. Mammae are immense. Definite pelvic girdle. No distinctive thyroid findings.

Treatment: This patient was placed on pituitrin by mouth and intramuscularly. There was but a

small loss of weight—20 pounds at the end of three months. There was definite improvement in the urinary symptoms. Thirst was diminished as was the output and frequency. Output varied from 1400 to 1800 cc. Patient discontinued treatment because she had an early paralysis agitans which did not improve but became progressively worse.

According to Englebach the therapeutic dose of pituitrin is one which is just below that producing intestinal cramps. He advises that the initial dose of 5m. be given, increasing 1 or 2 m. at each successive visit. There is no reason for giving larger doses as the same results can be obtained with less discomfort to the patient. As Billing states, pituitary body dessicated either posterior or anterior lobe or whole gland is destroyed by the digestive juices of the stomach. If this form of treatment is to be used alone it is well to place it in an enteric-coated capsule. I have had very little result with oral administration alone, but give it after the patient has had some relief from their complaint or have reached a fairly optimum weight. In children it also is given by mouth after active treatment has been discontinued. The best results should be obtained in the juvenile or preadolescent types because of the possibility of stimulating the pituitary body to resume its normal function. The earlier the other types are recognized the better should be the effect of substitutional therapy. In cases of long standing it is a matter of continuous substitution just as in the hypotyroid condition when treatment is discontinued or when obesity, somnolence, etc., will soon return. Thyroid is usually given, where tolerated, in therapeutic doses because of the secondary involvement of the thyroid.

In conclusion, I feel that even though the active hormone of the hypophysis has not been isolated some small measure of therapeutic results can be obtained by substitutional therapy.

DIABETES IN MICHIGAN

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In view of the newly awakened interest in diabetes, due to the recent discovery of insulin, it seems appropriate at this time to survey the problem in Michigan, that we may have definite information readily at hand.

The last few years have witnessed a marked increase in the number of deaths from this cause in this state. The average rate for the twenty years, 1900 to 1921, in Michigan, was 14.2 per 100,000 population. This increased in 1923 to 16.5, equivalent to about 16 per cent. This increase has been more or less uniform throughout the country. By reference to the chart, Fig. 1, there will be found a comparison of the rate in Michigan with the United States registration area for the ten years, 1913 to 1922. It will be noted thereon that there was a sharp decline between 1915 and 1916, 1917 rising in Michigan but not in the United States registration area, after which the rates fall rapidly until 1919, when the rate for the registration area rose abruptly and continued so to 1922, rising from 14.9 to 18.4. In Michigan the 1920 rate was slightly lower than the 1919 rate, after which it also rose sharply from 15.5 to 17.9. The 1923 figure, which is not yet available for the registration area, indicates that in so far as Michigan was concerned, there was a slight drop. The reason for this fluctuation is not easy to explain, except in relation to 1919, which followed the influenza pandemic of 1918 and was to be expected, as it is a recognized fact that after a severe epidemic of any acute disease, the following year or two will show a decrease in deaths from those afflictions which continue for a longer period of time.

In every population there is always a percentage of persons who, by reason of age, organic disease or infirmities are alive only by

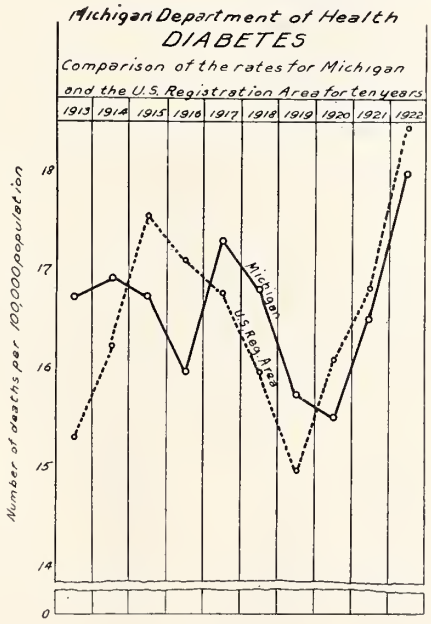

Figure 1

fortunate circumstances, and any unusual condition will result in their passing out, leaving only the more robust and thereby tending to reduce the death rates for the succeeding year or two. It is entirely probable that the slight decrease between 1922 and 1923 was accidental and not due materially to any improved condition.

The next question that naturally arises is the relation of Michigan to other states. Of the thirty-seven states in the United States registration area in 1922, Michigan occupied twenty-second place, the highest rate being in New Hampshire and the lowest in Mississippi. This is illustrated in the chart, Fig. 2.

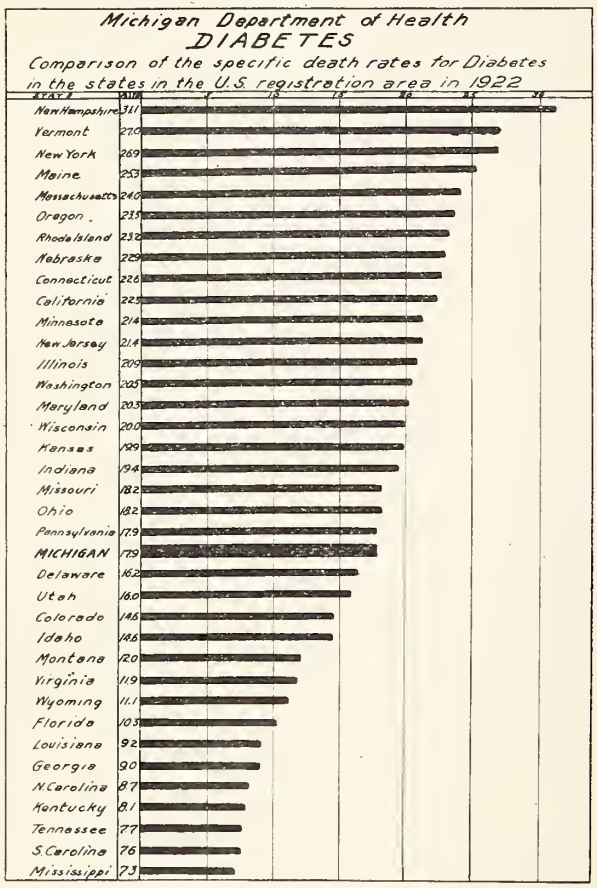

Figure 2

TABLE NO. 1

DIABETES

Comparison of the number of deaths per 100,000 population in the states of the United States Registration Area for 1922, and the percentage of population over 45 years of age, 1920 census.

State	Diabetes Death Rate	per cent of population over 45 yrs.
New Hampshire	31.1	28.5
Vermont	27.0	28.5
New York	26.9	22.5
Maine	25.3	28.1
Massachusetts	24.0	24.2
Oregon,	23.5	24.4
Rhode Island	23.2	23.3
Nebraska	22.9	20.5
Connecticut	22.6	22.2
California	22.3	26.1
Minnesota	21.4	20.7
New Jersey	21.4	21.1
Illinois	20.9	21.6
Washington	20.5	22.7
Maryland	20.3	22.3
Wisconsin	20.0	22.1
Kansas	19.9	22.4
Indiana	19.4	24.8
Missouri	18.2	23.1
Ohio	18.2	23.2
Michigan	17.9	21.7
Pennsylvania	17.9	20.9
Delaware	16.2	23.7
Utah	16.0	16.6
Colorado	14.6	21,9
Idaho	14.6	18.3
Montana	12.0	18.4
Virginia	11.9	18.5
Wyoming	11.1	16.2
Florida	10.3	19.4
Louisiana	9.2	16.1
Georgia	9.0	16.0
North Carolina	8.7	16.1
Kentucky	8.1	19.9
Tennessee	7.7	18.6
South Carolina	7.6	14.4
Mississippi	7.3	16.3

Table No. 1 gives a comparison of the death rate from diabetes and a comparison of the percentage of the population of these states over forty-five years of age.

As will be discussed later, the high incidence of death occurs after the forty-fifth year and it would therefore naturally appear that those states having the largest percentage of their population above this age, would have the highest death rate. That this is not entirely true will be found by reference to Table No. 1, which gives this information and the same is illustrated in Fig. 3. While there is perhaps a somewhat general similarity between these two elements it is not close enough to justify the theory that this is the only factor to be considered.

In Fig. 4 will be found a comparison of the percentage of deaths for each month from diabetes, in comparison with the percentage of total deaths. It will be observed that from August to January, diabetes deaths are considerably higher than the total deaths, but that in February they were considerably lower, but higher again in March and April. Thus from August to April, with the single exception of February, they are well above the total deaths. This would indicate that for some reason which we do not understand, diabetes patients die much more readily during the cold months than

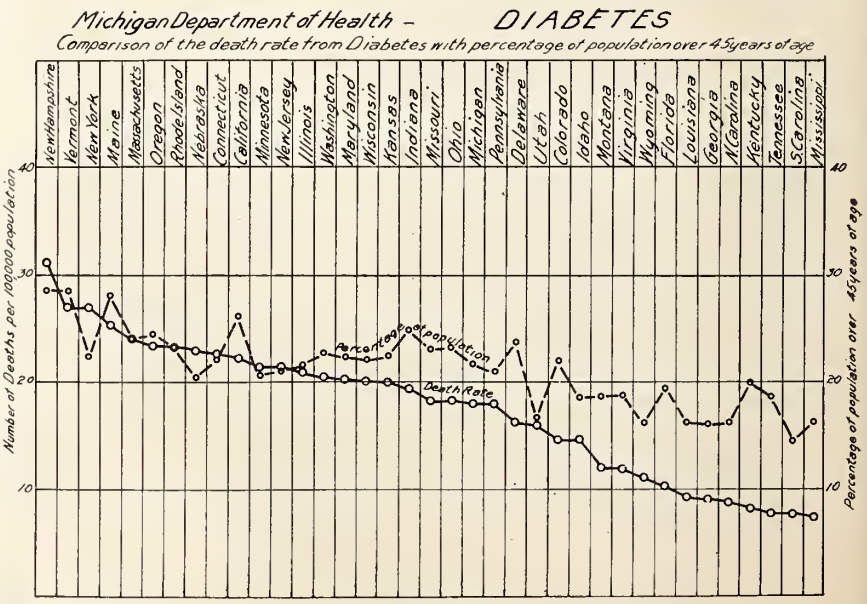

Figure 3

during the summer. This chart is based on the average deaths for three years and adjusted according to the length of the month. It seems that this difference in February must be found in the fact that February being a

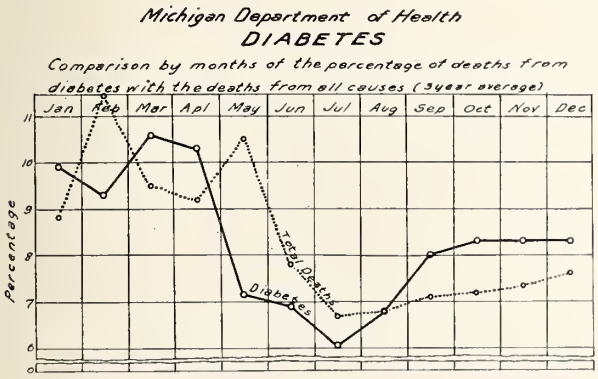

Figure 4

month of high incidence of respiratory disease, it is probable that many diabetes deaths were caused by intercurrent infections and were therefore assigned to other causes, owing to the failure on the part of physicians to state the presence of diabetes. Under the rules of practice used generally throughout the United States in registration offices, where diabetes is stated on the death certificate, it takes precedence over all other causes with which it is reported jointly as a contributory cause except diphtheria, typhoid fever and tuberculosis. A death stated to be from pneumonia with a contributory cause of diabetes would be included in the diabetes deaths but, of course, where no statement of any existing diabetes was on the certificate, there is no opportunity to do other than to include it in the cause stated.

The age distribution is shown graphically in Fig. 5. This chart is based on the 3,035 deaths which occurred in Michigan in the five years 1919 to 1923 inclusive. It will be observed that there is a sharp rise in the number of deaths at twelve years of age, a slight increase at about the thirtieth year and beginning with age forty it rises rapidly to a mode at the sixty-sixth year, after which it falls abruptly, to disappear between ninety and one hundred years.

In the consideration of the female curve, it is found to start below the male curve, but passing same about the seventh year. The same sharp rise is observed at age twelve as is found in the total curve and after which it descends to considerably below the male curve and then gradually approaches the same and crosses at about the thirty-third year, after which in general outline it follows the total curve, but is continuously above the male curve.

The male curve shows a slight rise between the tenth and twentieth year, again about the thirtieth year, and again about the fifty-third year, but approaches its mode at about the sixty-seventh year and almost five years later than the mode is found in the female curve.

The more accurate picture, however, of just what this means, is found in the illustration, Fig. 6. This is a comparison of the specific death rate for each age group by sex for the five-year average. This, however, does not tell a materially different story from the preceding illustration. The female rate in its relation to the male rate is in approximately the same proportion until the age group seventy to seventy-four, where it shows a sharply slower rise to the group seventy-five to seventy-nine and a drop from that point to the eighty and over group. This would probably mean that the female diabetics die at an earlier age than the male.

For the five-year period we find the rate for the males to be 13.9 and for females 18.2. This agrees generally with the findings of Emerson and Larimore in the Archives of Internal Medicine, November, 1924, and from which we quote: "The facts revealed by mortality statistics are particularly worth bearing in mind, when one recalls the common clinical experience that more men than women are treated for diabetes, while more women than men die of this disease, in a standard population unit. This is usually explained by the fact that men more frequently submit themselves to medical examination for insurance and employment purposes, in the interest of the companies concerned or as a measure of health protection for their own sakes."

There seems to be no relation whatever between rural and urban life in this disease. In 1923 the proportion shown for diabetes deaths

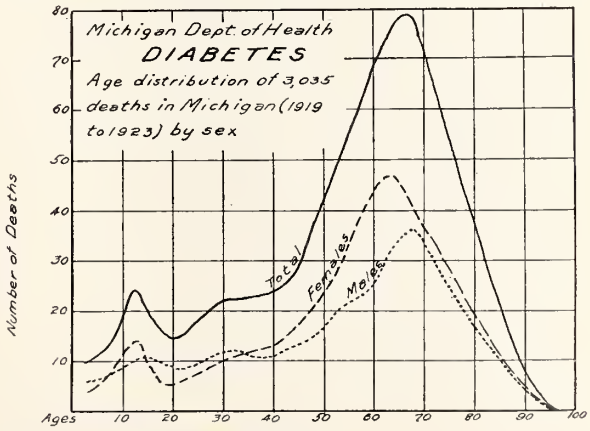

Figure 5

was 38 per cent rural and 62 per cent urban, which is exactly the proportionate distribution of the population.

The number of cases of any disease and its trend cannot be clearly defined by the lethal rates, as it has been repeatedly demonstrated that the increase of scientific knowledge as to the etiology and treatment of any disease can gradually but surely reduce the mortality in

spite of a continued or increasing incidence of the disease. This has been clearly demonstrated in the case of diphtheria, where better methods

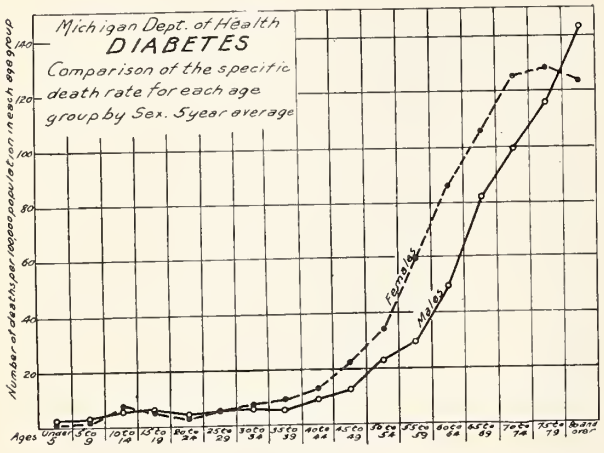

Figure 6

of diagnosis and the use of anti-toxin have reduced the fatality from 80 per cent or higher to less than 10 per cent, but the incidence of the disease has not been decreased in anything like a proportionate amount. In relation to diabetes, the use of insulin will be regarded as a means of postponing death rather than curing the disease, but if it does this, it will undoubtedly decrease the number of deaths assigned to this cause, because the postponement of a disease, which at present presents its highest fatality after the age of forty-five, will undoubtedly result in a great many of these diabetics dying from functional or organic disease which are such important factors in the fatality in this age group. We may, therefore, expect some shifting of the mode towards the higher age groups and a definite lowering of the same. It must also be considered that the use of laboratory aids will enable earlier diagnosis, and the imposition of dietary and therapeutic treatment will result in a further postponement, if not a cure, of this disease.

INTRA CRANIAL HEMORRHAGE IN THE NEW-BORN

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GRAND RAPIDS, MICHIGAN

During the last ten years much has been learned about intra cranial hemorrhage. There remains, however, a good deal of difference of opinion about certain phases of it and it is some of these unclear points which I wish to bring up for discussion.

We are pretty well agreed that it is very frequent and is the most common cause of death in the new-born. Also, that there must be a very large number of non-fatal and even mild cases, many of which cause no symptoms and cannot be recognized.

One of the most difficult phases is the proper evaluation of the several usual causative factors. At first the hemorrhages were nearly all thought to be of traumatic origin, but of late we hear much more about asphyxia and venous congestion, and hemorrhagic disease as being more important than birth trauma. Munro and Eustis of Boston state that since their modification of Warwick's classification to include their "Asphyxia" group they find a relatively small number of traumatic cases. They state "that the primary cause of the rupture of the vein and consequently of the hemorrhage is the asphyxia." Esch considers intra uterine asphyxia as the most important etiological factor. He points out that the congested intra cranial veins cannot withstand the normal or physiological amount of overlapping of the cranial bones and that the amount of bleeding from a tear of the small veins is much increased by the abnormal pressure within the veins. Seitz thinks that asphyxia is the usual cause of even very large hemorrhages. All through the newer obstetrical literature we hear less about trauma and more about so called intra uterine asphyxia.

From the standpoint of prophylaxis this view may have several dangers. In the effort to prevent intra uterine asphyxia or to rapidly extract a child showing signs of asphyxia more force must be used and more trauma to the child result. This has been well brought out by Pierson of the Sloane Hospital for Women in New York in his study of the birth injuries in breech deliveries. Sloane refers to the "Hurried conduct of labor and delivery" as an error in obstetrical judgment, and states that "Frantic haste, as opposed to deliberate skill," has killed many babies in delivery. Potter sometimes allows fifteen or twenty minutes to elapse between the birth of the navel and that of the child's head in breech delivery without the occurrence of fatal asphyxia.

We must remember, too, that conditions are quite different in a university maternity hospital attended by skilled obstetricians than they are where we, as pediatricians, are called in to see a child in private practice because on the second day it refuses to nurse. The chances are much greater of there having been considerable trauma in the delivery. In my small experience of eleven or twelve cases of intra cranial hemorrhage physiological or pathological birth trauma has been a very important factor in the majority of them, and it is much safer to consider that compression of the child's head is the primary cause and that asphyxia and venous congestion are predisposing and contributing factors.

While we occasionally see intra cranial hemorrhage in children born by Caesarian section and after so called easy normal labor, it occurs more frequently in prolonged labors, contracted

pelvis, forceps delivery, and version or breech presentation. The skill of the obstetrician in avoiding undue trauma to the child's head is an important factor in prophylaxis.

Prematurity acts in much the same way as asphyxia. The head of a premature child is relatively large, it is softer and more moldable, the premature child is more subject to asphyxia, the dura and the vessel walls are unripe and friable and there is apt to be some underlying cause for the child being premature, such as separation of the placenta, eclampsia, or other disease of the mother, all of which may predispose to intra cranial hemorrhage.

Especially since Rodda's excellent work we have heard a great deal about hemorrhagic disease as a cause of subdural hemorrhage. It certainly may be an important factor in some of the later cases, that is, those cases in which the symptoms only appear three or four days after birth. The physiological delay in the coagulation and bleeding time which appears on the second or third day may certainly increase or renew the hemorrhage in a case which has had an entirely different cause.

In a good many cases more than one of these factors play a part. Trauma may be combined with asphyxia, or asphyxia with prematurity, or prematurity with hemorrhagic disease, or any other combination may occur. It is very important when confronted with a possible case to inquire carefully into the birth history, the appearance of the child directly after birth, the degree of asphyxia and the method of resuscitation.

A great deal of confusion also exists as to the best way of classifying these cases clinically. Warwick's classification into the Birth Trauma Group, the Venous Congestion Group, and the Foetal Disease Group has been pretty generally adopted, but as mentioned before, more than one of these causative factors are often present in one case.

Seitz' classification into supra tentorial and infra tentorial is now considered impractical from a clinical standpoint because of the similarity of the clinical pictures, especially in the later stages, and because of the frequency of mixed forms. Esch divides his cases intot those with symptoms appearing immediately after birth and later cases. He also advises making an anatomical diagnosis when possible, that is, a location of the hemorrhagic area from the symptoms and signs. This is, of course, of great value if a surgical decompression is to be done, but unfortunately, in many even of the severer cases there are no localizing signs. In this connection might be mentioned the value of a subdural puncture going through the outer angle of the anterior fontanel. This is used very commonly in the clinics in Vienna and is considered a very valuable and harmless procedure to aid in localizing the hemorrhage, but has never been very extensively adopted in this country. It certainly is less dangerous than a ventricle puncture or a cysterna puncture, and should be of value preceding a decompression in indicating on which side an operation would give the best result.

Time will not permit of an enumeration of the symptoms of intra cranial hemorrhage, but we are all pretty well agreed that they are caused by increased intra cranial tension due to an acute hydrocephalus and oedema resulting from an interference with the reabsorption of the spinal fluid rather than to direct pressure of the extravasation of blood. The value of lumbar puncture and an estimation or measurement of this increased pressure is pretty well recognized; and the value of repeated lumbar punctures for the relief of this pressure is generally accepted. It is a method of treatment which is available to a great many more cases than a surgical decompression and I believe promises more with much less risk. We have one case which is now normal at three years of age, which showed a very bloody fluid at the first puncture and an apparent cure after the third puncture.

A third phase of this subject which is as yet unsettled is the relationship between birth hemorrhage and later nervous and mental diseases. The opinion is quite generally held in this country that intra cranial hemorrhage and its associated increase in intra cranial pressure produces certain chronic changes in the infant's brain of circulatory, inflammatory, or trophic nature. That depending upon the extent of these organic changes, a greater or less degree of mental and physical deformity will result. That a very common cause of the infantile hemiplegias, diplegias, and paraplegias, of imbecility of varying degrees and possibly of epilepsy is birth injury. Zappert, and I believe neurologists in general, consider that prematurity is usually found by a careful inquiry into the birth history in cases of Little's Disease.

This question has been approached from two different angles. Hannes has followed up all children born at the Breslau Polyclinic since 1893. In 399 cases of asphyxia and difficult or artificial labor, only two, or .5 per cent later developed epilepsy, and one of these started when it was eleven years of age. Of 157 asphyxiated babies, only 3.8 per cent showed later abnormalities after eliminating definitely hereditary cases. Of 242 difficult or artificial labors, only 1.2 per cent showed abnormalities, while of 206 normal labors, 3.4 per cent showed abnormalities. He concludes that severe labor and asphyxia do not cause abnormal mental development and idiocy any more than does normal labor and that birth injury has very little or nothing to do with epilepsy.

Schott approached the question from the reverse angle. He studied 1,100 weak-minded

children with reference to their birth history—especially prematurity, severe labor, forceps delivery, twin or triplet birth, and asphyxia. Of these 1,100 cases of imbecliity, only 30 cases, or 2.81 per cent had birth injury as the sole cause, although 150, or 13.63 per cent gave a history of birth injury plus hereditary taint. He also studied 1,100 cases of epilepsy and found birth injury as the sole causative factor in 1.09 per cent. Birth injury plus heredity occurred in 8.54 per cent. In no case could prematurity alone have been the cause. He concludes that for a birth injury to produce imbecility or epilepsy there usually is a predisposing, inherited factor in the infant's brain resulting from disease of the parents, especially the mother. This heredity element may be imbecility, insanity, epilepsy, alcoholism, etc.

He found that premature babies were more likely to develop nervous diseases and Little's Disease. Also that severe labor or birth injury may produce a less resistant brain more liable to result in imbecility after suffering in childhood from head injury, meningitis, or scarlet fever.

These valuable statistics seem to indicate a somewhat more favorable prognosis for cases of intra cranial hemorrhage and should give us courage to treat these unfortunate infants without so much fear of late results. It is surprising how frequently one encounters an attitude of physician and parents that if this child is not going to be normal mentally or physically it would be better to lose it now before the parents become attached to it. They use this argument in withholding permission to do a lumbar puncture. By assuring them that a great many cases of intra cranial hemorrhage have developed into normal healthy children and that the child's chances are very much better with the pressure relieved we can hope for more co-operation from the family physician and the parents.

The demonstration of intra cranial hemorrhage and tears in the tentorium at autopsy has been simplified by the use of Beneke's technique. In the Pathological Department in Vienna it is done as follows: The usual scalp incision is made and the scalp drawn forward and backward. With bone scissors two incisions, three or four centimeters apart, are made parallel with the sagittal suture and the longitudinal sinus reaching from the frontal region to the occipital. An incision is then made around the skull on each side connecting the two ends of the first incisions. These two triangular pieces of skull bone and dura are removed and the brain, the longitudinal sinus, the flax, and the tentorium inspected.

In conclusion let me say that we must always be on the alert to recognize this very common condition; that birth trauma, including rough and forceful methods of resuscitation, are important factors in its causation; that we can be very hopeful for a complete cure in a good many cases; and that the late results have probably been a little exaggerated and a child born of healthy parents has at least a fair chance of remaining normal mentally and physically after an intra cranial hemorrhage.

A COMPARATIVE STUDY OF THE NEGRO AND THE WHITE PELVIS

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In the course of our work at the Prenatal Clinics of the Detroit Department of Health, a large proportion of the patients are negroes and as a marked incongruence was noted between external pelvic measurements and what one would expect to find on internal mensuration of the negro pelvis we have made a study to try to determine wherein there were normal racial pelvic differences.

A review of the literature revealed some broad statements concerning racial pelvic differences, but very little of definite pelvic mensuration to accurately define these differences. Practically all of the researches except that of Riggs, of Johns Hopkins Hospital, have been done with the skeletized pelvis so that the inferences to be drawn from those researches cannot be accurately applied to our work as we are dealing with measurements in the living subject and their interpretation.

We, therefore, set out to measure and record the measurements of every negro patient who was apparently of pure negro blood as evidenced by color of skin, shape of skull, thickness and protuberance of lips, protruding jaw, and shape of forehead and nose, avoiding any who showed any marked aberration from the usual negro type or showed any evidence of pelvic deformity.

The study here presented involves three hundred normal pelves with the result shown in the accompanying tables.

For purposes of comparison the average normal measurements of white pelves are given together with the average negro measurements in Riggs' series. The measurements of the white pelvis with the exception of the pelvic height have been taken from modern text-books on obstetrics.

The interspinous diameter in the negro pelvis is on the average, about two centimeters shorter and the intercristal diameter 2.4 centimeters shorter than in the white pelvis. The difference between the interspinous and intercristal diameters is thus 2.6 cm. against 3 cm. in the white. From this fact it is apparent that the curvature of

	Inter-Spinous	Inter-Cristal	Inter-Trochant	External Conjugate	Post. Sup. Iliac Sp.	Dorsal Sacral Length	Pelvic Height	Sacro-Pubic	Tubera Ischii	Post. Sagittal	Conj. Diag.
Average Normal (White)	26	29	31-32	19-21	9.8	12.5	21.35	11-11.7	10.5-11	6.5-7	12.5-13.5
Average Normal (Negro) Riggs'	23.99	26	30.9	19.32							12.177
Average Normal (Negro) Our Series	23.99	26.64	31.29	20.35	8.79	13.71	20.88	11.17	10.74	7.36	12.9

the iliac crest in the negro is less than in the white race beside which the breadth of the false pelvis is about 2.4 cm. smaller.

Comparison of the intertrochanteric diameters reveals that they are practically alike in both races. However, the relation of the intercristal to the intertrochanteric diameter of each race is markedly different. In the white race these diameters are 29 and 32 cm. respectively, while in the negro they are 26.6 and 31.3 cm.—a difference of 3 cm. in the white and 4.7 cm. in the negro.. This fact is noticeable in the exaggerated flaring of the thighs of the negro woman in comparison with the white.

The external conjugate or diameter of Baudelocque is practically the same in the two races.

The distance between the inner surfaces of the posterior superior iliac spines is 1 cm. shorter in the negro than in the white woman while the dorsal sacral length, measured from the depression beneath the last lumbar vertebra to the tip of the sacrum, is 1.2 cm. longer. These facts, we believe to indicate that the negro sacrum is narrower and longer than the white, a fact noted also by Van Franque. Both the longitudinal and transverse concavity of its anterior surface seem to be less marked in the negro.

As we were unable to find any allusion to pelvic height in measurements made in the living by other investigators we have measured a number of normal white pelves in order to arrive at an average value for purposes of comparison. The pelvic height is the distance between the tuberosity of the ischium and the highest point of the crest of the ilium and a few words as to the method of obtaining this measurement would perhaps be of interest. The patient is placed on the right side with the upper leg flexed strongly over the abdomen. The tuberosity of the ischium may then be felt laterally to the anus in the gluteo-femoral crease. One tip of the pelvimeter is placed upon the tuberosity and firmly held while with the other tip the highest point on the crest of the ilium is sought. Firm pressure is made in order to bring the tips of the pelvimeter into close proximity to the bones and the reading taken. One centimeter is deducted from the reading to allow for overlying tissue. As reported in a previous paper, we believe this to be an important measurement in the diagnosis of rachitic and generally contracted pelves.

The average pelvic height in the white woman we have measured is 21.35 cm. while that of the negro pelvis is 20.88. Thus we have found by measurements that the negro pelvis is not higher than the white pelvis, but averages about .4 cm. shorter, a difference that for comparative purposes, may be disregarded. However, Riggs has stated that the negro pelvis is higher than the white, a statement which according to our investigation, is contradicted.

The dimensions of the pelvic outlet in the negro, as shown in the table, correspond in all respects with the white except that the posterior sagittal diameter is slightly larger in the negro, which may account in part for the relative infrequency of perineal laceration.

Thus far we have considered only the external measurements of the pelvis. From these it is possible only to estimate the probable form of the pelvic passage, but the most important information is gained on internal examination. Unfortunately the internal diameters of the pelvis of the living cannot be directly measured so that we are forced to estimate the capacity of the pelvis without recourse to measurements except in the case of the conjugata diagonalis, which can be measured only indirectly. The conjugata diagonalis in our series of negro patients averaged 12.9 cm. which corresponds with that of the white pelvis. However, there are several other interesting features found by digital examination which, although they may not be described by measurements are nevertheless quite constant. The pars iliaca and pars pubica, which are the only palpable portions of the linea terminalis in the living subject, are more easily reached throughout their length in the negro pelvis than in the white, seeming to lie nearer to the pelvic outlet. As our investigation has shown that the negro and white pelvis are of approximately the same height from ischial tuberosity to iliac crest it would then seem that the height of the ilium from the linea terminalis to its crest is larger in the negro, a characteristic which both Vrolik and Van Franque have noted in dried pelves. It may be that this fact has led the observers who have dealt with skeletized pelves to state that the negro pelvis is higher than the

white while it is true only of the false pelvis.

On internal examination of the white woman the linea terminalis may be plainly felt as a distinct, ledge-like border, on each side of the pelvis and throughout its extent is uniformly curved so that it feels markedly concave to the examining finger. In the negro pelvis, on the other hand, the linea terminalis is rounded so that it is not as plainly felt as a boundary between the false and true pelvis. It is of course concave, but the concavity is definitely not as marked as in the white pelvis, giving one a distinct impression that the linea terminales are closer together, in other words, that the inlet is not as broad in its transverse diameter as in the white pelvis. Vrolik and Van Franque have also noted this characteristic in their studies of skeletized pelves and they state that while the transverse diameter is narrow it is still larger than the antero-posterior diameter of the inlet. Von Siebold goes still farther in saying that the antero-posterior diameter in the negro pelvis is larger than the transverse. It is indeed unfortunate that measurement of the transverse diameter in the living is impossible because the shortening of this diameter is apparently one of the most regular of the characteristics of the negro pelvis.

The distance between the ischial spines in the negro seems also to be shortened, but, as our attempts to measure this diameter with an internal pelvimeter were not successful, the degree of shortening cannot be expressed. Van Franque gives this diameter as 8.2 cm. while the average in the white race is 10.5 to 11 cm.

For the purpose of graphically representing the more important conclusions reached in our study we present a drawing of the white pelvis taken from Breus and Kolisko together with a drawing of our conception of the negro pelvis as described in this communication. The diagram of the negro pelvis has been drawn to the same scale as the white pelvis and has been constructed according to the average measurements obtained in our series of negro patients.

The most striking contrast which you will note in the two diagrams is furnished by the shape and dimensions of the inlet. The antero posterior diameter in each figure is practically the same, but the transverse diameter in the diagram of the negro pelvis is somewhat shorter than in the white pelvis. This is in accord with our findings on examination of this series of negro pelves both by external pelvimetry and by internal palpation. While the shape of the inlet of the white pelvis is roughly a transverse oval,

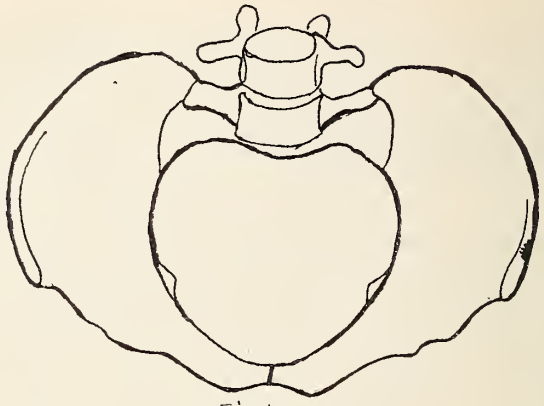

Fig. 1
White Pelvis

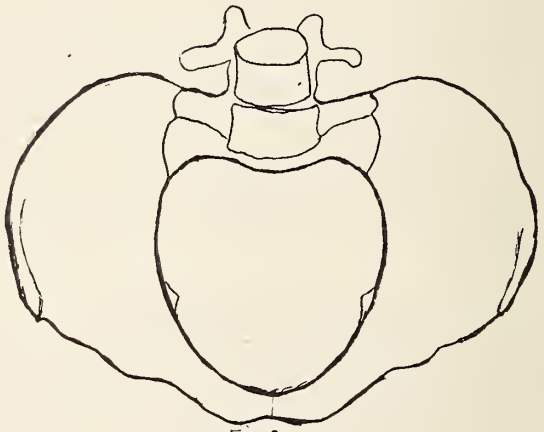

Fig. 2
Negro Pelvis

that of the negro pelvis is more nearly round, the antero-posterior diameter more closely approaching the size of the transverse. C. Martin, Van Franque and Vrolik have all also noted this characteristic in their studies of dried negro pelves. Accordingly, the available room for the passage of the negro infant during birth is materially lessened and, all other factors being equal, we would expect that the negro woman would have a longer, more difficult labor than the white women, This, according to our experience, does not seem to be the case, which may perhaps be explained by the increased size and openness of the sutures and fontanels of the negro infant's head, making it more capable of being molded to fit the smaller pelvic space.

SUMMARY

Brief comparison of the negro with the white pelvis then reveals the following characteristics present in the negro pelvis:

1. The intercristal and intertrochanteric diameters are smaller.
2. The iliac crest is less curved as evidenced by the smaller difference between the interspinous and intercristal diameters.
3. There is a greater difference between the intercristal and intertrochanteric diame-

ters making the flaring of the thighs more marked.

4. The sacrum is narrower and longer and the concavity of its anterior surface is less marked both longitudinally and transversely.

5. There is practically no difference in the measurements of the pelvic outlet except that the posterior sagittal is slightly larger.

6. The ilium is higher, the palpable portion of the linea terminalis lies nearer to the pelvic outlet, is more rounded and less curved.

7. The transverse diameter of the inlet is smaller while the antero-posterior diameter is practically the same, the shape of the inlet thus being more nearly round.

8. The ischial spines are nearer together.

9. The whole pelvis is narrower transversely except the outlet.

While the purpose of the study outlined in this communication has been chiefly to ascertain the racial differences between the white and negro pelvis we believe its results throw an interesting light on the question of evolution.

Vrolik has stated that the female negro pelvis is similar in many respects to the pelvis of the female gorilla and while that statement has been challenged by Von Franque, we believe that a number of characteristics of the negro pelvis brought out in this paper point to an evolutionary relation between the white, negro and gorilla pelvis.

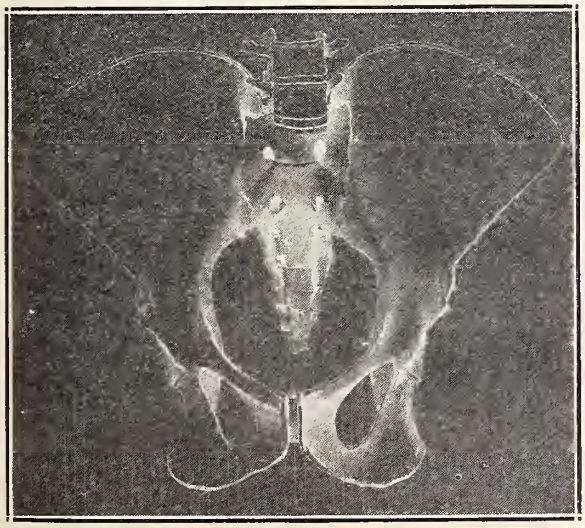

Fig. 3
GORILLA PELVIS

Romer, in his description of the gorilla pelvis, states that the ilium is very high, the interspinous diameter is larger than the intercristal, and the inlet is antero-posterior oval, the antero posterior diameter being much larger than the transverse.

Inspection of the drawing of the gorilla pelvis as presented by Von Franque shows that the sacrum, as compared with the rest of the pelvis, is very long and narrow and the longitudinal concavity of its anterior surface is apparently very slight while the transverse concavity has apparently been replaced by a slight convexity.

Bearing in mind these few characteristics of the gorilla pelvis and the facts which we have brought out concerning the negro pelvis it seems but logical to conclude that the negro pelvis shows a reversion toward the type found in the lower animals.

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DENTAL PROBLEMS OF CHILDHOOD FROM THE PEDIATRIC STANDPOINT

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Within the last few years, physicians and dentists have come to be more and more of the opinion that dentistry and medicine overlap, and that health is frequently a problem, neither of dentistry nor medicine, but of judicious mixture of these two arts. What I have to say is a plea for a better understanding of this composite problem as it affects the well-being of children.

The effect of the condition of a child's health upon the development of his teeth is a standard subject for text books; but strangely enough the reverse of this, the effect of the condition of a child's teeth upon his health, which is of vastly more importance, is scarcely even mentioned. Indeed, with the exception of a chapter on the subject by Still in his "Common Diseases and Disorders of Childhood," I cannot recall a satisfactory article on this subject. Still, who is a sane ob-

server, remarks on the marked coincidence of malnutrition with diseased condition of the teeth.

There are a number of possible causes for this malnutrition:

1. It may be due to pain which prevents a child from eating proper amounts or properly masticating that which he eats.
2. The presence of decaying or decayed food residue in the mouth may in itself have an inhibiting effect on the appetite.
3. In the absence of definite specific infection (aside from that affecting the tooth structure itself) such an unclean condition of the mouth may afford excellent culture medium and environment for the growth of organisms pathogenic to the body.
4. There may be absorption of toxic products from chronic abscesses of teeth roots or adjacent structures such as we know is frequently present from chronic infection elsewhere in the body.
5. There may be definite metasteses from such an area of infection to other parts of the body.

In the absence of definite information as to the validity of any of these hypotheses we can only say, that all sounds reasonable. Some would appeal to me as more probable than others. Whatever be the mechanism, we know, empirically, that diseased conditions of the teeth and peridental tissue are responsible for ill health.

Still quotes case histories of children in whom malnutrition, digestive and nervous disturbances were cured by dentistry alone and we have had similar experinces both in individual cases and in bulk.

Dr. Davis cites the case of one school room of some forty children in one of the poorer sections of the city where dental conditions were worst. Every child in this room had its teeth given all necessary care. In the following six months absences in this room were reduced 80 per cent and the whole class did an extra half years work. That this was due to dentistry alone would scarcely be a fair claim since there are so many other variable factors, but certainly we must allow the dentist some credit.

If we admit that teeth may affect the health directly or indirectly, then we would wish to know the incidence of these cases and what may be done in the way of prevention. The incidence of dental disease is well known. In the examination of some 10,000 school children in Flint in 1918, about 8,600 were found to be in need of dental care, and of these 2,500 had definite infection present as shown by abscess or sinus. These figures are typical. What does this signify to us as physicians? I confess I do not know what ultimate remedy will be available to the 86 children out of every hundred who need it. I am convinced that we can, however, make a beginning at getting the conditions righted. First, I think by becoming accustomed to examining the mouths of our patients. No physical examination is complete without an examination of the mouth nor is an examination of the mouth worth while unless we have some idea as to what we are looking for. Also we can interest the mothers in the preservation of the deciduous teeth. We see these children as a rule, years before the dentist does and often by the time they get to him irrepairable damage has been done. If we can get our patients to the dentists early enough, we will have done a great deal toward cutting down the amount of dentistry needed and its cost.

To begin properly at the beginning the dental care of the child should start with the obstetritian; for the quality and often the fate of the deciduous teeth is largely decided by the health and diet of the pregnant mother.

Children's teeth usually interest the mother first when the baby is about six months old. Mothers are then anxious to know, when and in what order the deciduous teeth will erupt. When this process is completed, at the age of thirty or thirty-six months, they apparently forget there are teeth until one begins to ache or a so-called "gum boil" puts in its appearance. These events do not always receive the attention they deserve. Most people seem to feel that an occasional tooth ache is one of the inevitable penalties of being a child. We should tell them that the first tooth ache may mean a tooth well along the road to destruction through neglect, and that a "gum boil" means an abscess, the only treatment for which is often extraction of the offending tooth. An abscess on any visible surface which discharged for a week or more would cause considerable concern, but how often do we see children with from one to four abscesses in the mouth which have persisted for months and sometimes years. Such infection constantly present can not help but be seriously harmful to the child's health.

In the physical examination of a good many thousand school children over a period of four years, one fact which has been repeatedly impressed upon my mind is the frequent association of mouth infection with diseased tonsils. In the beginning of our school work it seemed logical to clean up all mouth infection before removing tonsils, assuming that the tonsils were one barrier to systemic infection. Many of the children

would have dental work completed and then refuse tonsillectomy. A year later, examination of those same children by the same examiners would find apparently normal tonsils. So frequently did we find this to be the case that we stopped advising tonsillectomy in children with bad mouth infection, referring them instead for re-examination six months or a year later, after dental work had been completed.

Finally from the standpoint of the physician, I would ask that the dentists view their patients as a complete individual and not as a problem in mechanics. We see too often a chronic abscessed tooth in a child whose mother says she had been to the dentist and he refused to pull the tooth because it was needed to preserve the arch. That may well be and yet in my opinion a healthy child is of more importance than perfect acclusion if we can have but one of these two possibilities.

DISCUSSION

Dr. Russell W. Bunting, D. D. S., College of Dental Surgery, University of Michigan, Ann Arbor: The paper which Dr. Jones has just presented calls attention to certain problems which lie in that border line between medicine and dentistry, or rather, as he says, are of equal importance to both professions. These are problems of first magnitude, the significance of which we but lately have begun to realize and the solution of which will demand the best minds and the best efforts of our allied groups.

Dr. Jones has stated that dental disease and infections, especially dental caries, is very common. In fact, dental caries is the most common disease known to man affecting from 85 to 95 per cent of our population. Whatevevr is common is usually regarded as proper and accepted as a matter of fact. Thus for many generations dental caries has been accepted as a matter of course and of secondary importance. The treatment and repair of carious teeth especially in children was looked upon as a matter of choice on the part of the individual, a somewhat desirable procedure, but not at all necessary, more that of a luxury to be indulged in by the wealthy and affluent. The more recent scientific findings which have shown so clearly the far reaching significance of dental disease and infections have placed these all too common conditions in a different light and have commanded the attention of all who have to do with public health. Physicians, dentists, health workers and public spirited laymen are everywhere becoming keenly aware of the situation and are ready to join hands in seeking to solve the problem. The question now before us is, where shall we begin?

Your essayist has stated the problem as one dealing primarily with children and with this we find ourselves in full accord. Goethe said, "Little can be accomplished for grown-up people; the intelligent man begins with the child." This is specially true of the problem of dental disease for it is in childhood that the greatest damage occurs. The adult has already suffered the greatest initial attack during his life time, his future difficulties being largely that of combating the effects of dental disease which occurred during the early years of his life. Therefore the problem, if it is to be solved at all, must be met during the early years of life, that period in which you who are included in this group have the major interest and to which you are devoting a large part of your professional activity. It is then the pediatrician who must take a large part in the application of whatever measures of dental disease prevention that may be put into effect.

Abnormal dental and maxillary development and the tendency to dental disease is undoubtedly an inheritable quality as is shown by its familial transmission. It also very definitely follows civilization as a penalty we must pay for our unnatural mode of diet and living which we perhaps may never wholly eliminate. It is our duty however, to study present day conditions to seek the controllable factors and to minimize their specific effects as far as is possible.

Dentistry has attempted to meet the situation by discovering and repairing defects as promptly and efficiently as possible, but the need of dental care in the present generation is so great that the dentists of today are caring for but a small percentage of the people who need such attention. If, for instance, the public should demand complete dental care for all children of the land today, and if every dentist should cease to work adults and should devote his entire time to children alone, it would require years to adequately meet the needs of the present generation. It is quite apparent that we can never meet the situation by any system of reparative service. It is true that, as the essayist has said, we should meet the dental needs of the child in an operative way as far as it is possible for us to do so, but the solution of the problem in any large way must begin farther back in the prevention of dental disorders before they occur.

In regard to the possibility of influencing the quality of dental and maxillary development by manipulations of the diet of the mother during pregnancy, there is no adequate proof that normal bone and tooth development may be attained in this manner. The problem of material diet as it relates to fetal development is at present but imperfectly understood. It seems improbable that the permanent teeth can be directly affected to any appreciable degree during prenatal life since their calcification does not begin until after birth and therefore their development should obviously be more related to post-natal rather than prenatal conditions.

It is self evident that the mother during pregnancy should receive a diet adequate to the needs of the growing fetus, but the ingestion of such a diet does not insure good bones and teeth in the child and on the other hand, if for any reason she is unable to ingest and assimilate an adequate diet, that fact does not necessarily doom the teeth and bones to hypoplastic development. As far as we know, rickets is not present at birth, at least the anatomic evidences are wanting when the material diet has been pronouncedly inadequate. The prevention of rickets seems to lie for the most part in the post-natal period of life and there is strong circumstantial evidence at least that when the physicians by the education and direction of the public shall successfully protect the new-born child against rickets they will at the same time greatly improve the quality of tooth development.

Although prenatal nutrition and metabolism at present are often beyond control, it remains that post-natal nutrition can be much more definitely regulated and it would appear that by the insurance of an adequaute supply of calcium and phosphorus together with the activators of calcium metabolism, vitamins and sunlight, bone and tooth development may be markedly improved. If our present views

are correct, physicians and pediatricians in particular have at their hands a most potent means of protecting children during early life from faulty bone and tooth development.

After the teeth are formed and erupted their health and freedom from disease seemingly is closely related to the diet. As far as our present knowledge goes the following four principles of dietary regimen may be said to be conducive to oral health and should be recommended to every parent for the guidance of their children.

First—The diet should be well balanced, containing the requisite and proportionate amounts of carbohydrate, protein, fat, inorganic salts, water, and vitamin principles. Special attention should be given to the inclusion of the so-called protective foods, milk and green leaf, for the additional calcium and vitamin D, which may compensate for deficiencies in that regard of the remainder of the diet.

Second—The diet should contain a considerable amount of hard foods and the soft pappy varieties should be reduced to a minimum. Hard foods, well chewed, constitute a most efficient method of cleansing the mouth. They also afford proper stimulous to the growing jaws to favor normal development.

Third—Sweets should be limited to a minimum and should not be eaten between meals. Soft, sticky candy retained about the teeth constitutes a most favorable media for the growth of bacteria that produce dental caries. Candy between meals also perverts the appetite so that the child cannot be induced to eat a well-balanced meal.

Fourth—Acid and tart fruits should be included in the diet in reasonable amounts, especially at the end of the meal. Acids are efficient salivants affording a copius flow of thin watery saliva that washes the teeth and greatly aids in the cleansing of the mouth. Fruits are an excellent substitute for candy.

The physician of today and especially the pediatrician have within their power the means of greatly improving the human race. With the great advancement in medical science and with the growing practice of mothers to consult their family physician frequently relative to the health of their children, there has arisin a wonderful opportunity to direct the new generation into a bodily development and general health that is far superior to that of former times. As far as dental conditions are concerned, the training of mothers in the known measures of dietary regimen for the growing child should greatly improve the structural development of tooth and maxillary structures. This, then, should constitute a most potent means of preventing dental maldevelopment and disease.

Dr. Orton Goodsell, Jr., Saginaw: The paper which you have just heard is the most pertinent that I have listened to in some time. Dr. Jones has in a short period of time given some very important facts which are worthy of being given great consideration by the physician, and also the dentist.

I will probably merely repeat a few of the conclusions that Dr. Jones has come to, and add a few things in a rambling fashion.

The physicians and dentists are jointly at fault in a good many cases where dental conditions are such as to influence the health of the child—the physician before the child has the full complement of deciduous teeth, sometimes after, for not recommending dental attention—and the dentists for their neglect of the children's teeth after they once have established contact with the patient. In the first instance, if the patient is not sent to the dentist the temporary teeth may be irreparably damaged, because of the fact that a great many people still believe that the best thing to do with the first dentition is to leave it alone and let the teeth decay as they will. The only way that I can account for the neglect by the dentist, is the fact that he is too busy or he has a natural antipathy towards children's work. (However in defense of the dentist, I am glad to say that I believe the men are few and far between who would retain an infected first tooth in the mouth to preserve the arch, as Dr. Jones says they occasionally do).

On the other hand, the inherent nature of the human race is one of neglect, and all the information and urging extant would not influence some people to care for themselves. However, we must not let that discourage us because health in all its phases is a matter of education to a large extent.

Along with the advice relative to the temporary teeth, the parents should be impressed with the fact that the first permanent molars erupt at about the age of six years, and they should be carefully observed because they are frequently imagined to be temporary teeth and as such are neglected. Many children present themselves, to have, what the parents imagine, temporary teeth removed, only to be amazed at the knowledge that permanent teeth are damaged beyond repair.

Another factor which I believe seriously menaces the health and mentality of the child and which is most frequently neglected, is the problem of malocclusion. Perhaps, due to heredity, or very frequently to the improper early care of the deciduous teeth, we find that we have retrusion of either or both maxillae, with the accompanying narrowing of the arches. I might add that mouth breathing, thumb-sucking, and the use of comforters, are to be heartily condemned, and attempts at correction made before the habits are fully formed. In the case of the mandible being shortened, the oral pharynx is greatly reduced in size, and invariably the tonsils are greatly hypertrophied. In the case of the superior maxilla the narrowing of the arch causes a narrowing of the nasal pharynx and promotes the development of adenoid tissue and the accompanying mentality is usually low. Whenever a physician or dentist sees a child who has a deformity he should make a definite effort to see that the patient visits the orthodontist because there is no doubt that the broadening of the arches greatly improves mentality in many instances, and also the physical well-being of the patient. The aesthetic appearance of the individual is always benefitted, as well, and is too frequently considered the only cause for orthodontia.

Again rambling on, I wish to give vent to a few things that do not necessarily apply to pediatrics alone, but to the practice of medicine in general.

The proper use of our powers of observation is our greatest asset; yet, just the other day, a girl, six years of age, was brought to my office for examination and operation of a cleft of the soft palate. The mother told me that the youngster was ten months old before the cleft was discovered, also a difficulty in feeding was noticed, and that no one had ever emphasized the need of early operation. I know that you gentlemen would not be so negligent.

Numerous patients possessing acute, suppurating, alveolar abscesses, have been told by physicians, dentists, and their next door neighbors, that the inflammation should be permitted to subside before the removal of the tooth and drainage are attempted. Yet, where else in the body, would the cause of the trouble be allowed to remain

if it could be removed? Occasionally externally draining alveolar abscesses are treated with no thought of oral examination.

I am very glad that the aforementionel errors seldom occur, and I want to congratulate the medical profession on their co-operation with the dentists.

In conclusion, I might make these observations:

(1) As soon as a child can manipulate a toothbrush he should be given one and be shown how to use it.

(2) The parents should be informed relative to the necessity of having the preservation of the temporary teeth safeguarded. The physician can occasionally mention the need of periodical examination.

(3) Observation of developmental defects should be noted and such defects corrected.

(4) Communities should make every effort to have a large and well trained staff of dentists to care for its school children.

I heartily agree with Dr. Jones, relative to the consideration of the patient as a human being, rather than as a piece of machinery, and believe that, with that view in mind, we will all be better able to serve the purpose for which we exist.

SPINAL ANESTHESIA*

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This paper is not prompted by any desire to review the history or to comment on the slow but steady progress of local, regional or spinal anesthesia, but rather to relate in a brief way our limited experience with spinal anesthesia, in the hope of encouraging its more universal adoption as a routine procedure.

We realize many articles have been published on this subject, but, sorry to say, very few are such that the ordinary physician or surgeon is able to feel that he is capable of inducing a good spinal anesthesia. Most of the literature, in fact, leaves the impression that it is too technical or too risky for the general doctor and he muses on the subject with a fair amount of interest, but an appalling lack of courage for personal adoption of the method.

It is indeed the old story of popularizing a new method, first with the profession, and secondly with the public, both of whom are reluctant to give up the idea of general anesthesia, for major and even minor surgical procedures.

Incidentally, we might add that the public is more easily convinced than members of the profession. It is, in fact astounding to note the pleasure and general satisfaction of patients who have been operated under spinal anesthesia and it is only a matter of months to educate a community to such an advanced procedure.

The method is simple and does not require much technical anatomical knowledge. It consists only of an injection of an anesthetic agent into the spinal canal and the site of puncture varies with the extent of anesthesia required. For operations on the lower extremities, perineum, external genitalia and perineal prostatectomy, the injection is usually made between the third and fourth lumbar vertebra. For supra-pubic prostatectomy, herniotomy, appendectomy, vaginal hysterectomy, etc., it is usually made between the second and third lumbar vertebra. For operations on the organs of the upper abdominal cavity, such as gastroenterostomy, cholecystectomy and splenectomy, the injection is usually made between the first and second lumbar or the twelfth dorsal and first lumbar. In other words, the height of an injection depends on the height of anesthesia required. Under no conditions is an attempt made to produce anesthesia above the level of the diaphragm.

The only instruments required consist of any good 5 c.c. syringe of the Luer type, fitted with a small needle for aspirating the anesthetic fluid into the syringe, and a spinal puncture needle of medium gage.

Quoting Labat, whose technic we have followed:

> "It will be of advantage to have this needle of medium length (80 mm) with a short bevel to avoid contact with the spinal cord in high punctures. Long bevels are apt to remain partly out of the sub-arachnoid space. It must be unbreakable, but should not bend too easily. Steel needles are apt to break; platinum needles become crooked after a few punctures. A nickle needle is the one of prference. Most important of all, It should have a stylet that fits the lumen smoothly and is ground to bevel with the needle. Needless to say, the needle should fit the tip of the syringe without permitting any leaks."

Although various anesthetic agents have been employed, our experience has practically been limited to novocain. This seems to be the anesthetic fluid of choice. We have used the prepared solutions put up in convenient ampules according to the method of Babcock. They contain exactly 2 c.c. of sterile novocain solution, containing .2 c.c. absolute alcohol to make the specific gravity a trifle less than that of spinal fluid. They are put up by Frank E. Morgan & Sons, Philadelphia, Pa., and can be ordered from them direct.

As a general rule, our patients have been prepared as for any type of anesthesia, receiving one-fourth grain morphine and 1/150 grain atropine, one hour before the anesthesia is induced. This pre-anesthetic preparation depends somewhat on the psychic stability of the patient. More recently, we have been using morphine one-fourth grain alone. In some instances, the patient has been told the type of anesthetic we expect to use, and others have not. This again, we believe, depends on the case, general circumstances and psychic make-up of the subject and should be left to the discretion of those in charge. It is best not to promise too much so that in case general nar-

*Read at Meeting of Staff of St. Lawrence Hospital, January 13, 1925.

cosis has to be resorted to, the patient is not disappointed, anxious or apprehensive. In talking to the patient, we generally refer to the spinal puncture as "another hypodermic." This, as a rule, causes no alarm or anxiety, as he has already experienced a similar process an hour previously.

The spinal puncture is made with the patient in the upright position, back arched as much as possible and held, as a rule, by the assistant or nurse. The landmarks for puncture are the iliac crests. A horizontal line through the highest points of the iliac crests usually crosses the spinous process of the fourth lumbar vertebra or passes between the fourth and fifth lumbar spines. This is often of assistance, although direct palpation in most subjects is a far better guide. Having located the spinous process of the desired vertebra, the puncture is made about one-fourth inch below it, holding the needle perpendicular to the skin at that place. If the needle has been properly introduced, the interspinous ligaments serve as its best guide and it easily reaches the intervertebral space. When the dura is pierced, a definite impression, as though a tense membrane had been pierced, is transmitted to the fingers of the operator.

The stylet is now withdrawn and the spinal fluid is allowed to run or drop out, depending on the pressure. From 3 to 5 c.c. are allowed to escape. The syringe, which has previously been loaded with novocain solution, is now carefully attached to the spinal needle and a very small quantity of spinal fluid is allowed to mix with its contents. The contents are then partially discharged into the spinal canal. The remainder is again mixed with a very small quantity of spinal fluid by slight traction on the plunger and the entire contents are then slowly discharged into the spinal canal. The needle is then immediately removed and the patient put in the recumbent position with head about six inches lower than his feet.

We have not found it necessary to inject the entire 2 c.c. of the prepared novocain solution, and for an average dose, we seldom use more than 1½ c.c., the surplus, of course, being discarded before mixture with spinal fluid. The dose varies with the weight of the patient and roughly amounts to 1 c.c. of prepared solution to 100 pounds of weight.

If the above procedure has been correctly done, anesthesia begins almost immediately, or at least within 5 or 10 minutes. Seldom is 15 or 20 minutes required. The patient should be informed that his legs will probably become numb and he will probably not be able to move them. The anesthesia usually lasts for one hour, sometimes more, sometimes less. In many cases there will be a marked pallor, shallow respiration, nausea and sometimes vomiting. These symptoms are chiefly dependent on the rather sudden lowering of the blood pressure and, fortunately, are not often alarming and can be overcome by having the patient take a few deep breaths. This lowering of the blood pressure occurs in almost every case. It can be partially offset by the administration of caffein and strychnin, but this is seldom resorted to in our cases. If convenient, it is of advantage to have a trained attendant sitting at the head of the patient to engage him in conversation, stimulate his breathing, and consequently avoid any annoying symptoms. Respiratory failure can occur and did so in two of our early cases, following too large a dose. The condition seems alarming, but is overcome by systematic rhythmic pressure on the base of the thorax and the injection of caffein and strychnin.

We have completed a series of over 100 cases under varied conditions, such as in the home, without trained attendants at the head of the patient, and without pre-anesthetic preparation, and have been driven to the conclusion that it is a safe and sane procedure. We have encountered failures, but they were due to faults in technic and not to the method. There have been no deaths, and the advantages have been manifold in that it permits an easy and efficient exploration of the abdominal cavity. The bowels are flat and never crowd the operative field. The abdominal muscles are relaxed and conditions are as favorable as can possibly be made for clean surgery and lowering of operative risks.

There is practically no post-operative nausea or vomiting, no distention, no lung and kidney disturbances. Normal diet may be started earlier and frequently is not even interrupted. Convalescence is naturally shortened.

We have used this type of anesthesia for the following types of operations: Appendectomy, 22; one-sided hernia, 14; double hernia, 9; perineorraphies, 9; prostatectomies, 10; hemorrhoidectomy, 7; hysterectomy, 6; D. and D., 6; other pelvic operations, 9; duodenal ulcer, 1; cholecystectomy, 1; bone plates and leg amputations, 6; cystoscopic, bladder stone and urethrotomy, 3.

CONCLUSIONS

1. Spinal anesthesia is a safe and simple procedure.
2. Anesthesia in most cases is readily induced.
3. Operative technique is rendered easier because of complete relaxation of all parts.
4. Hemorrhage is reduced because of lowered blood pressure.
5. Heart, lungs and kidneys are undisturbed.
6. Convalescence is shortened.
7. No post-operative sickness due to the anesthetic and patient may not miss a meal.
8. Spinal anesthesia causes the least disturbance to the patient.

THE X-RAY FINDINGS IN RICKETS

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The very frequent and widely spread occurrence of rickets combined with the fact that it is characterized by fairly constant X-ray findings induced the writer to present this topic for your consideration. The fact that this disease is characterized by a diminution of the calcium content, especially about the joints and in the long bones causes skeletal changes which are easily studied by the X-ray.

The clinical picture is usually so characteristic that the diagnosis can be arrived at without having recourse to the special methods of diagnosis. From this fact monographs on the X-ray appearance of the disease have not been very abundant although in studying the literaturue one is impressed by the fact that the subject has been covered by a few authors quite thoroughly. In German we find the publications of Kohler, Hochsinger, Wahlauer, Reyher; in this country Bartjer and George have made important contributions to the X-ray appearance of rickets. The study of the bone and joint changes naturally divides itself into two groups, first the changes usually seen during the acute or florid stage and second the changes found during the period of subsidence of the acute symptoms when there is a redeposit of calcium in the frame-work tissues.

First the X-ray appearance encountered in the florid stage—the X-ray films usually show abnormal width of the bone developing area between the epiphysis and diaphysis, this is more conspicuous and more easily studied about the wrist joint, but more especially about the knee joint. The boundaries of the zone of ossification are more indistinct and hazy than are found under normal conditions. The diaphyses or shafts of the long bones show a marked loss of lime salts, evidenced by a lessened differentiation between the bone and soft tissues attended also with an increase in the bone striae. This latter appearance, of course, is found in many types of bone disease where there is a diminution of the amount of lime. The changes along the cortex of the long bones is also quite characteristic, the usual sharp cortical outline becoming very much less conspicuous both in its sharpness and width. The stage of activity is further characterized by an irregular serrated appearance of the ends of the diaphyses. This fairly constant finding of numerous small projections into the widened zone of cartilage is of considerable practical importance inasmuch as it allows fairly definite differentiation as to whether the process is active or at an end.

The appearance of the skeletal structures following the florid stage while the tissues are taking on again a lime deposit is characteristic. These appearances, of course, vary according to the stage in which the process is observed; still they are fairly constant and can be grouped together quite well. A realization of the fact that with abatement of the symptoms there is a redeposition of lime is a definite starting point in these observations. It has been remarked that in the study of rickets the condition from the X-ray standpoint is one not so much of change in the cartilagenous zone, but rather an inactivity or retardation of the process of bone growth at the extreme end of the diaphysis. With a greater activity in this zone accompanied by a laying down of lime salts we find that the diminution of lime which was so characteristic of the florid stage is disappearing. The thinness of the cortex becomes less conspicuous and the contour of the bone gradually returns to normal. The subcortical portions show a very much more distinct appearance. It has often happened in the gradual return to normal that this is not always regulated with a guage-like precision, just as in the formation of bone callus there is often an overproduction of bone so in the deposit of lime in the new bone formation about a joint after an attack of active rickets there results an abnormal wideness and sharp corners which project beyond the limits of normal. This overgrowth is sometimes described by the graphic term of the "cup" appearance or by some authors as the "cuy and saucer" appearance. The same is true if there has been a bending of one of the bones during the period of weakness making a deposit of a thick layer of new bone tissue on the concave side. As the bone grows, the layer of new bone deposited just after the active stage is over, retains its density so that in after years looking at radiographs of the long bones we find lines of extra density denoting excessive bone formation which tells the story that in some former period in the individual's life rickets had been present and had healed.

During the course of the disease fractures of the various bones may occur even following a minimum amount of trauma.

Beside these characteristic changes in the epiphyses and diaphyses there may occur a certain softening of other portions of the skeleton than in the so-called long bones.

There occurs so-called craniotabes where there is a localized somewhat circular lack of lime in the bones of the skull. There may be changes in the shape of the skull due to the pressure of the head upon the pillow while the bones are still soft. This often gives rise to a peculiar square appearance in the skull. There may also be retardation in the closure of the fontanelles. If there is an increase in intracranial pressure during the period of softness of the cranial bones caused by rickets there will be very marked impressions of the convolutions of the brain made upon the yielding surface especially of the frontal and temporal bones, this appearance may last through life and produce some confusion in later examination. On account of the technical difficulties it is hard to show the bending of the ribs in so-called Rhicitic Rosary. Where the condition is very prominent with marked bending of the ribs so that there is marked interference with the aeration of the lungs there may occur secondary atelectatic changes in the lung fields. In adults the late results seen in so-called "pigeon-breast" are very difficult to demonstrate in the postero-anterior position, but may be shown by lateral films of the anterior chest wall. If there is a tendency to scoliosis while the patient's bones are insufficient in lime there may occur vertebral changes which will persist, and render the scoliosis permanent.

Changes may also be found in the pelvis which in women later in life may cause definite symptoms, even complicating parturition. In fact as the disease is attended by a general lessening of the lime content of the skeleton there may occur a variety of changes, generally however of minor importance.

The ossification centers of the wrists and ankles do not show definite change in the time of their appearance. There is usually no retardation in the appearance of the centers or in the carpal or tarsal bones. There are exceptions, however, to this rule. In this particular, rickets differs from cretinism where the ossification centers appear according to the mental age of the child rather than according to his actual age.

DIFFERENTIAL DIAGNOSIS

From the foregoing it will be gathered that the X-ray findings and clinical findings in rickets are usually quite characteristic with only slight liability to be confounded with other diseases. The other diseases with which the X-ray findings can be confounded are congenital syphylis and infantile scurvy. The appearances in achondroplasia, osteogenesis imperfecta and osteomalacia are less liable to be confused with rickets.

In the first month of life the joint lesions of conjenital syphylis may be confounded with rickets. However, by giving heed to the time element we have an important means of differentiation, the syphylitic osteochondritis usually appearing between birth and the first and second month, whereas the joint lesions of rickets do not occur usually until after the first year. In considering the bowing of the syphylitic bone as compared with the rachitic bone it is well to remember the old rule that the deposit of new bone in syphylis takes place on the convex surface while the deposit of new bone in rickets takes place on the concave surface.

Koehler suggests in cases where the diagnosis is doubtful from the clinical and X-ray standpoint that several joints be filmed, preferably including both the upper and lower extremities. The reason of this suggestion lies in the fact that the process may show various stages in these various joints.

INFANTILE SCURVY

The X-ray findings of infantile scurvy do not usually cause much confusion with rickets. In scurvy as in rickets, the joint involvements are multiple and periarticular swelling is present. The joint changes, however, take place on the diaphyseal side of the epiphyseal line, in contrast to rickets where the changes take place on the epiphyseal side of the diaphyseal line. The saucerization of the end of the bone is not seen and the subperiosteal hemorrhages so frequently found along the course of the femur and which are so characteristic of scurvy are not found in rickets. The characteristic findings in scurvy have the appearance of a second zone of destruction crossing the shaft located a little above and distant from the epiphyseal line, this second zone is commonly spoken of as "Trunmer. Fractures are infrequent in scurvy. It will be remembered, however, that with the healing which comes about with the proper treatment of a case of rickets that the line of new bone formation may somewhat simulate the Trumer's zone of scurvy.

In osteogenesis imperfecta the apperance of multiple fractures is characteristic of this condition, which might be confused with rickets. However, there is one important point of differentiation, namely, that the characteristic epiphyseal changes seen in rickets are entirely lacking in osteogenesis imperfecta.

Fetal rickets is a term which is sometimes applied to achondroplasia. However, most

writers conisder that the use of the term fetal rickets as applied to this disease is somewhat of a misnomer. The X-ray appearances in achondroplasia are quite characteristic, quite as much so as the physical appearance of the patient. In achondroplasia the bones are usually shorter than normal, somewhat thicker and wider and squareness toward the formed end with a tendency at times to a knob-like formation; this lateral appearance, however, is not always constant. The pelvic changes in achondroplasia are of considerable moment, inasmuch as they frequently interfere in women with a normal parturition. The appearance of the metacarpal is usually quite characteristic of the disease and from films of the hands the diagnosis is easily made.

LATE RICKETS

A few cases have been reported where the characteristic findings of rickets have not appeared at the usual time, namely, the first and second years, but have appeared much later in life, sometimes at the seventh or eighth year. A very few cases have been recorded where thy have appeared toward the end of the second decade. There cases, however, ar so rare that they can be dismissed as o flittle import.

ADOLESCENT RICKETS

This term has sometimes been applied to changes that have occurred in the shape of the neck of the femur where softening has taken place producing a coxa vara. It is probably much better to regard these cases as of endocrine origin.

CONCLUSION

(1) The X-ray findings in rickets are quite characteristic of the disease and can be used for differential diagnosis. (2) The X-ray findings are of value in differentiating the two stages of rickets and also in studying the progress of the cases during treatment. (3) The X-ray findings in rickets, congenital syphilis and infantile scurvy are usually clear-cut and will often aid in the clinical diagnosis.

PULMONARY SYPHILIS

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A few years ago the writer in the course of his clinical studies came across a small number of cases which seemed to him to be undoubted examples of pulmonary syphilis, in which the clinical signs and symptoms were predominantly pulmonary in character. At about the same time the author's brother, then Fellow in Dermatology and Syphilology at the University Hospital, Ann Arbor, had seen some similar examples among the patients who came under his observation there. We were both impressed with the chaotic condition of the literature upon the subject and felt that an attempt should be made to organize and unify the vast amount of data already published.

The result of this attempt was a paper on "Syphilis of the Lung, an Analysis of 120 Selected Cases from the Literature," which appeared in November, 1920, in the "Annals of Medicine." In selecting these 120 cases we took only those in which the evidence of syphilitic etiology was convincing, and as a consequence no doubt excluded many cases which were uncomplicated pulmonary syphilis, but the evidence in the reports was either incomplete or not conclusive. As a matter of fact we accepted less than 1 case in every 10 reported. This series of 120 cases is, so far as we are able to determine, the largest series thus far collected and analyzed. Recently Howard has searched the literature of the last two years and collected some fifty-odd additional cases of which there can be little question of doubt.

From the foregoing it may well be said that syphilis of the lung is no longer a curiosity in medicine; on the contrary, its existence may be said to be definitely and unquestionably proven by incontrovertible evidence. Further than this we believe that it exists much more frequently than it is recognized. Howard reports 4 cases in 720 autopsy records, two of which would have been overlooked, had not clinical symptoms led to a more than ordinarily thorough study of the histology of the lungs. Carrera's finding of 12 syphilitic lungs among only 152 autopsies on syphilitic patients would also seem to give evidence for the above statement. The number of lung involvements found depends largely upon the case with which examination, both clinical and postmortem, is pursued.

HISTORY

For those interested in the history of lung syphilis there exists the excellent monograph of Beriel, the chapter by Milian in Fournier's "Traite de la Syphilis," and the thesis of Massia. Only a few references can be made here. Paracelsus, in 1500, made the first reference to the disease, though up to the time of Laennec the notions of syphilis of the lung were very vague. During the sixteenth and seventeenth centuries the diagnosis was made rather frequently by Pare, Astruc, Boerhave and Morgagni, who spoke of it as "phthisic a lue venerea", and for a time all phthisis was believed to be syphilitic. Laennec established the anatomical entity of tuberculosis of the lung and for a considerable time belief in syphilis of the lung was completely overthrown. Later Lag-

neau, Yvaren, MacCarthy and Ricord attempted to draw attention to the condition, but its existence was for the most part absolutely denied. Sacharjin of Moscow, seems to have been the first to describe a syphilitic pneumonia in the adult and give it its name. With Virchow and his work, the real history of pulmonary syphilis began. Depaul, 1850, Widal, Dittrich, Virchow, 1858, and others described white pneumonia of the newborn. Cornil and Ranvier in France described gummata. Lancereaux in 1864 to 1866, by extremely careful and precise work in recording clinical observations, made an important advance in the subject. Porter, in 1877, read the first paper on the subject in the United States. Koch's discovery of the tubercle bacillus in 1882 again caused a tide of conservatism or scepticism toward the frequency, or in some cases even the existance of such a condition as lung syphilis. But this attitude, however, was of short duration, thanks to the advent of the Wassermann reaction and Schaudinn's discovery of the specific organism in the cause of syphilis in 1905. Since that date there has been a very marked increase in the number of cases reported. Warthin's notable contributions to the "New Pathology of Syphilis" in 1918 and since, have enabled the pathologist to recognize the disease in the absence of gross anatomical changes and have materially aided in putting the disease upon a firm foundation. Lastly, the advent of the X-ray has done considerable in the way of aiding in establishing diagnosis, though I am entirely unwilling to accept the X-ray in the absence of other evidence.

INCIDENCE

In regard to frequency of syphilis of the lung it must be stated that reports on this subject contain a large personal element depending upon the thoroughness with which cases are examined and analyzed. Much depends upon the training and the interest of the person doing the work. Thus, Claytor stated (1905) that there was not a single example of pulmonary syphilis in the entire 13,000 specimens in the Army Medical Museum in Washington. Only 10 unconvincing cases were so labeled in the London pathological collections. Backok reports only 2 cases in 6,000 Chicago autopsies, and West 2 cases in 6,000 autopsies at Copenhagen. On the other hand, however, syphilis of the lungs was found 12 times in 2,500 autopsies at Johns Hopkins Hospital; Peterson records 11 cases in 88 autopsies on cases of acquired syphilis, and Carrera, as said before, 12 cases in 152 autopsies on syphilitics. Howard found 1,499 syphilitics among 11,982 medical admissions, of whom 139 had visceral syphilis—excluding syphilis of the nervous system. His ratio of lung syphilis is visceral syphilis was about 1 to 20. At the Jefferson Chest Hospital, in the careful examination of 1,200 supposedly tuberculous patients for mistaken diagnosis, 72, (6 per cent) were proven non-tuberculous, 4 of whom were found to be pulmonary syphilis. It seems reasonable, then, to believe that the condition is often unrecognized clinically—particularly when it is associated with pulmonary tuberculosis, which, by the way, is the commonest form of syphilitic involvement of the lungs. In the French clinics, where more than ordinary pains are taken to intercept syphilitic lung cases, the incidence of the disease is affected accordingly. Thus Roque encounters 4 or 5 cases annually who come to him as phthisical; no bacilli are found in the sputum and sero-reactions for tuberculosis are negative. Inoculations into guinea pigs show nothing, while on the other hand such cases yield readily to specific treatment. Paviot also states that there often come to his autopsy table cases of syphilis of the lung which have been fruitlessly treated in clinic and hospital as pulmonary tuberculosis.

AGE

In 98 cases in which the age was recorded, the oldest stated age was 70, the youngest, 2. The grand average was 36, while the disease was most common in the early thirties. The average age of those who came to autopsy was considerably higher than those recorded with symptomatic cure because of the fact that many of these cases, like tuberculosis, tend to run a chronic course.

SEX

The condition was found to be about twice as common in males as in females in 118 cases in which sex was noted. Seventy-six were males with 31 deaths. Forty-two were females with 21 deaths. The condition therefore seems to be more fatal in women.

DATE OF INFECTION

In 49 cases the time elapsing between the chancre and the manifestation of the lung symptoms was ascertained. The earliest cases occurred three months following infection, while the latest came to autopsy only 34 years after the chancre. The average was 11 years, a rather long interval, it would seem, and one which should be shortened materially with a better knowledge of the disease and more vigilance directed toward its detection.

ASSOCIATED SYPHILITIC LESIONS

Of the entire 120 cases, 95 (80 per cent) showed other active lesions of the disease which were recognized clinically. Half of these, or 48 cases, had multiple lesions involving more than one system. These included such divergent conditions as bone lesions, cutaneous syphilis, laryngeal involvement, tracheal stenosis, heart, kidney and liver lesions, aortitis, dis-

eased spleen, and syphilitic involvement of the testicles. It is interesting to note that in only one case (a tabetic) was there evidence of nervous system syphilis. It is claimed by some observers that syphilis of the nervous system and other visceral syphilis do not co-exist in the same subject. Our experience would seem to speak for at least its rarety. Eighty per cent of our cases reviewed had concomitant clinical syphilitic lesions, chiefly of the bones, skin and viscera, while 40 per cent of those who came to autopsy had lesions in the liver.

CAUSES

Virulence of the infection, together with weakened individual resistance, would seem to be the greatest predisposing factors in syphilitic involvement of the lung. In only 1 case was trauma a probable factor, although a more careful history might show that trauma plays a more important role than these figures indicate. None of our cases recorded had had intensive specific treatment; in all there had been only occasional periodic or desultory medication, or none at all.

HEREDITY

White pneumonia of the new-born has been excluded from our series. Twelve cases (10 per cent) were latent manifestations of hereditary infection, all of which were markedly stigmatized, the lung lesions occurring at ages varying from 2 to 40 years. The lung lesions in heredosyphilitics are usually atypical from the usual picture of lung tuberculosis, run a rapid course and cavitation occurs early. Most commonly it is associated with tuberculosis. Indeed, Koch's bacillus has been demonstrated by three observers in white pneumonia of the new-born. (Ribadeau, Dumas et Amenille).

RECOGNITION

Syphilis of the lung is rarely recognized ante-mortem—in our 55 cases with autopsy diagnosis was made on the table in 51, but 4 cases being correctly diagnosed previous to autopsy. In 66 cases of the entire series data regarding diagnosis were given. Thirty-six cases (55 per cent) had been diagnosed as pulmonary tuberculosis. Twenty-four cases (thirty-nine per cent) were correctly diagnosed from the findings. In 16 cases (24 per cent) diagnosis was made after the appearance of associated syphilitic lesions. In 22 cases (35 per cent) diagnosis was established by applying therapeutic tests.

PATHOLOGY

Osler in 1908 stated that "with the discovery of the specific organism, we may expect more light on the difficult problem of pulmonary syphilis. On the contrary, notwithstanding the discovery of the bacillus of Koch and the recognition of the causative agent in syphilis, we may still reiterate the oft-quoted statement of Virchow, that there is no definite pathological picture which is characteristic of syphilis of the lung. The diagnosis must be made from a careful consideration of many points, and even then it is neither easy nor always possible.

Warthin in 1918 established the new pathology of syphilis and it is in the light of this that lung syphilis should be considered. And it has been so studied by Carrera working in Warthin's laboratory.

Warthin says: "The gumma is not the essential typical lesion of old or latent syphilis. It is a relatively rare formation. The essential tissue-lesion of either late or latent syphilis is an irritative or inflammatory process, usually mild in degree, characterized by lymphocytic and plasma-cell infiltrations in the stroma, particularly about the blood vessels and lymphatics, slight tissue proliferations, eventually fibrous, and atrophy or degeneration of the parenchyma. These mild inflammatory reactions are due to the localizations in the tissues of relatively avirulent spirochetes. The pathologic diagnosis of syphilis is essentially microscopic."

Carrera studied microscopically lung tissue from 152 known syphilitics and found 3 cases of gumma of the lung, 2 cases of syphilitic peribronchitis with arteritis, and 3 cases of syphilitic arteritis, though he admits that probably many more cases would have shown luetic changes had it been possible to make more thorough and extensive examinations.

CLASSIFICATION

It has long been customary to classify syphilitic lung pathology as:

1. Pneumonic forms.
2. Gummous processes.
3. Syphilitic pulmonary sclerosis.
4. Bronchiectasis.
5. Suppurative processes, ulceration and gangrene.

SYPHILITIC PNEUMONIA

The pneumonic forms, while common in the new-born heredosyphilitic, are more rare in the acquired cases. The simplest type described is the gelatinous infiltration of Hiller, being the catarrhal process of other authors (Beriel). The lobe is hard, heavy, and non-air-containing. In color it is gray or reddish, and shows a homogeneous gelatinous aspect upon section. On pressure a viscous fluid, rich in cells, exudes.

Macroscopically there are two types of interstitial pneumonia described. These types differ but slightly, the first being white pneumonia of the adult resembling the same condition in the new-born, the second being gray induration. The lesions consist of islands in the lung parenchyma the size of a nut or egg,

though cases of lobar involvement have been reported. Interstitial pneumonia occurred in 28, or 50 per cent of the cases with autopsy. The location follows the general distribution of syphilis in the lung.

In a cut section the foci are well limited, fleshy in consistency and of elastic hardness. There is little fluid on pressure; occasionally there are bubbles of air. Crepitation is rare. The affected portions sink in water. It is most often associated with bronchiectasis or gumma, and the connective tissue shows sclerosis more or less advanced.

Fournier believed in the existence of a caseous pneumonia as a result of necrosis of the foci or catarrhal syphilitic pneumonia. The establishment of such an entity is on a rather doubtful footing.

The pneumonic types were not observed by Carrera. However, cases are certainly frequently met with clinically and respond phenomenally to antiluetic treatment.

GUMMATA

Macroscopically these are the most characteristic lesions of syphilis of the lung, consisting ordinarily of nodular formations well delimited by a ring of sclerosed tissue, the center being necrosed. Thirty-two cases, or 59 per cent, presented gummata. In 6 of these cases the lesions were single, in 26 multiple. About half were stated to be caseous. The location follows the general localization of syphilitic involvement of the lung. Gummata may occur subpleurally. In many of the cases the lesions were extensions from, or in association with, gummata of neighboring parts.

Differentiation at the autopsy table of gummata of the lung from similar tuberculous lesions is difficult. In favor of gumma of the lung are: (1) Location. Tuberculous nodules most commonly occur in plain lung parenchyma. (2) Absence of calcification. Calcification is unknown in gummata of the lung. On the other hand, fatty degeneration is said to be more common in gumma. (3) Encapsulation. This is said to be a constant finding in gummata of the lung; it is more rare in tuberculosis.

SYPHILITIC PULMONARY SCLEROSIS OR SYPHILITIC FIBROSIS

This condition results from the cicatricial termination or healing of all syphilitic pneumopathies. It was present in 28, or 50 per cent of all cases. In addition, cicatrices, as such, were mentioned in about 10 per cent of the cases. Commonest in adults of middle age, the picture consists of white hard bands or nodules which creak under the knife, in short, having all the aspects of ordinary sclerosis. The condition is described as: (1) A fine network throughout the lung parenchyma; (2) a thickening of the connective tissue following the bronchi, vessels and the interalveolar septa; (3) existing chiefly in the interalveolar and interlobular septa and in the adventitia of the vessels; (4) radiations of fibrous tissue from the hilus, following the bronchi; and (5) induration of the surface of the pleura by bands of fibrous tissue running on the surface and deeper, causing lobulation and furrowing analagous to syphilitic liver.

From a comparative study of 152 cases of lungs of syphilitics with 60 cases of tuberculous lungs, Carrera is convinced that it is never impossible to distinguish the fibrosis of tuberculosis from that of syphilis.

BRONCHIECTASIS

Dilatation of the bronchi, or bronchiectasis, occurred in 24 of the cases, or 47 per cent. The bronchiectases simulate cavities. Histologically they are lined by characteristic epithelium. There is also present new formation of cubical epithelium. Another important point is the augmentation of the circulation in the walls. Bronchiectasis was not noted by Carrera. However, two of his cases showed syphilitic peribronchitis, the essential changes consisting in plasma-cell infiltration, new-formed vessels, vascular connective tissue around the infiltration with anthracosis. The bronchial epithetypical syphilitic infiltrations of intima and adventitia. There was new-formed muscle in connection with the bronchi. The elastic tissue of the bronchus was either destroyed or lium was well preserved. There was sclerosis. Cuboidal cells were noted. The vessels showed displaced by the infiltrations.

SUPPURATION

In many cases pus can be squeezed from the air spaces and bronchi, showing a chronic bronchitis. This condition was described in 7, or 13 per cent of the cases with autopsy. Microscopically, there is an intense infiltration of small cells which should not be confounded with miliary gummata, the latter being very dry in comparison.

ULCEROUS LESIONS (SYPHILITIC PHTHISIS)

Ulceration of gummata of the lungs has frequently been described. Cavity occurred in 22 per cent of the cases with autopsy. Clinically it would seem to be exceedingly common. The gumma may develop near the wall of a bronchus and ulcerate and empty into it, forming a cavity. In two of our cases there are clinical observations which would seem to represent such an occurrence. The cases are not well described pathologically, and those which have been reported might be confused with a cavity formed by dilatation of a bronchus, which Beriel believes is the commonest syphilitic process in the lung. In latent cases of syphilitic phthisis the commonest cause for the physical signs of cavity is probably dilatation of a bronchus.

GANGRENOUS FORMS

These have also been poorly established pathologically. Many cases are reported clinically. They probably represent secondary infection in an ulcerated gumma, or result from endarteritis.

SYMPTOMATOLOGY

A review of symptoms and physical findings will emphasize many important points, first among which is the striking analogy of clinical lung syphilis to clinical pulmonary tuberculosis. Cough is the most constant symptom, being mentioned in 88 per cent of the cases. In many cases this began as a dry cough, in others it was productive from the onset. It was constant in 10 per cent of the cases. In the majority it was intermittent.

Expectoration was recorded in 71 per cent of the cases. In 40 per cent of these the sputum was profuse. In 39 per cent of the cases it was described as mucopurulent; in 27 per cent as purulent; in 15 per cent as nummular; and in 18 per cent as offensive. In 9 of the cases, or 7.5 per cent of the entire series, there were periods during which the patient coughed up large pieces of pulmonary tissue, indicating the disintegration and discharging of a gummatous process in the lung. The expectorated masses varied in size up to that of a large bean, and microscopically were altered lung parenchyma. In a case reported by Buchanan, spirochetes were demonstrated in the sputum. Such finding, however, is subject to doubt. The organisms may well have come from the mouth.

In one case there was expectoration of bile. Autopsy revealed a broncho-biliary fistula, due to a syphilitic process. In a similar case reported by MacDonald, the patient coughed up gall-stones.

Dyspnea was present in 33 per cent of the cases, to which various causes may be ascribed. In many cases it was due to laryngeal involvement or to tracheal stenosis. At other times it was due to toxemia. In the majority of cases it was due to direct involvement of the lung.

Hoarseness was reported in 9 cases. In several this condition progressed to complete aphonia.

Forty-five per cent had fever, the pulse and respiration being, as a rule, correspondingly high. Thirty-one per cent had night sweats. There was pain in the chest in 27 per cent. Hemoptysis occurred in 37 per cent. Forty-four of the cases complained of loss of weight. In 3 cases the general condition was stated to be good. In 8 other cases the symptoms presented were in no way referable to lesions in the lungs, the most common clinical picture being that of a cardiorenal syndrome.

PHYSICAL SIGNS

The location of the lesions in the lungs was determined by physical signs in 83 cases, as follows:

Right upper lobe	50%
Left upper lobe	54%
Right middle lobe	22%
Right lower lobe	24%
Left lower lobe	34%
Both lungs	40%

It is obvious, therefore, that in the clinical cases involvement of the upper lobes was about twice as common as lesions in the bases, or in the right middle lobe. Nearly half the cases presented lesions in both lungs.

Rales were the most constant finding. In 27½ per cent of the cases there were signs of cavity. Two per cent of the cases presented pneumothorax; 1 per cent pyopneumothorax. Empyema resulted in 1 per cent of the cases. Pleural effusion occurred in 7 per cent. There was pleural friction in 3 per cent of the cases. In 22 of the 120 cases the Wassermann reaction was performed on the blood of the patients. In all it was strongly positive.

X-RAY FINDINGS

The X-ray was employed in 15 cases. In some the involution of the lesions was controlled by plates.

It may be said that the findings from a roentgenologic standpoint have been many and varied with very little agreement among observers regarding a standard of results. We may perhaps best sum up the subject for the present in the words of Howard as set down in his recent paper on "Pulmonary Syphilis." He says: "These invariably show some changes even in the cases without other physical findings. In spite of the claims of Watkins, Golden and others, as to the pathognomonic X-ray picture, I am not yet convinced that the X-ray alone will suffice for the diagnosis; true, the picture is usually distinguishable from that found in pulmonary tuberculosis, owing to the unilateral tendency of the process, its greater liability to involvement of the roots of the lung, rather than the apices, and the rarity of signs of calcification. According to Callender, the shadows are clean cut and sharp and lack the mossy outline of tuberculosis, while others, as Watkins, emphasize the irregular border of the syphilitic shadow and its relation to the hilum of the lung rather than to the bronchial tree. Watkins' claim to finding 170 cases of pure lung syphilis among 6,500 chest plates (an incidence of 2.6 per cent) alone invalidates, in my opinion, his claim of a pathognomonic X-ray picture! We must agree, therefore, with Karshner that there is as yet no characteristic X-ray picture of syphilis of the lung, nor can one be expected from such a varied pathologic picture as syphilis offers."

AUTOPSY FINDINGS

It is of interest to note the pathology found in the lungs on autopsy.

In one case, which was a typical clinical case of lobar pneumonia, the lung was reported as densely filled with spirocheta pallida, no other organisms being present.

Whereas clinical syphilis of the lung is twice as common in the upper lobes as in the bases, the findings at autopsy would not at first glance seem to bear out this ratio. There are, however, various explanations for the apparent discrepancy between clinical and autopsy findings. In the first place, owing to a time-honored belief that syphilis of the lung always occurred in the bases, in many of the cases diagnosed at autopsy, the limitation of the pathology to the bases has been the sole factor which has led to careful study and subsequent diagnosis of syphilis rather than tuberculosis; whereas, in the clinical cases, the therapeutic test has been the most potent diagnostic point. For many years in the early period of the pathological study of pulmonary syphilis, involvement of the base was the only characteristic by which syphilis of the lung was distinguished from pulmonary tuberculosis. Many of the cases with autopsy considered in this paper were observed and reported during this period. Due to the generally recognized difficulty in diagnosing the condition from tuberculous infection, cases of syphilitic involvement of the upper lobes of the lung have for a long time been overlooked pathologically. Furthermore, 8 of the 44 cases, in which the location of the lesions was stated, were extensions of gummatous processes from the liver, diaphragm, bodies of the vertebrae, or stomach and intestines, and naturally the bases were the sites of attack. In such cases the widespread syphilitic pathology was the most conclusive factor in clinching the diagnosis of gumma. A large majority of the cases coming to autopsy were late chronic cases of syphilitic pneumopathies, many of which showed no symptoms referable to the lungs.

We believe that syphilis of the lung begins most often in the upper lobes, the involvement proceeding downward. It is a common finding at autopsy to find active syphilis in the bases and older sclerosed areas in the right middle, or upper lobes. As a clinical illustration of such a process, we recall a patient in our own experience who first presented herself with involvement of the apices and whose case was diagnosed and treated as pulmonary tuberculosis. Four years later, after the appearance of an extensive cutaneous syphilid, the physical signs pointed to involvement of the right base, the commonest location of active syphilis of the lung at autopsy, and indeed, the site generally said to be the most frequently invaded by the spirochete.

From our study of the cases, therefore, we conclude that early clinical cases of syphilitic infection of the lung most often show involvement of the bases as frequently as in the upper lobes. The location of the lesions, therefore, is not so important a diagnostic factor in eliminating tuberculosis as it has long been believed to be. Pathology in the apices by no means precludes consideration of syphilis. Syphilitic lesions of the upper lobe of the lung, however, differ from tuberculous infection in that the signs are not so frequently elicited at the extreme apices, but rather in the infra-clavicular region. In this respect the findings at autopsy substantiate the physical signs and X-ray picture. In a large majority of the cases showing syphilitic lesions in the upper lobes, such lesions were located below the middle, or in the base of the upper lobes. It is also common to find similar pathology in the contiguous portion of the adjacent lobe. Generally speaking, therefore, the physical signs of syphilitic involvement of the lung, while not uncommon in the apices, are, however, most frequently elicited over that region of the chest lying between the clavicles and the bases. From the data at hand, there is a much greater tendency for involvement on the right side. In other words, pathology in the right lower quadrant of the chest is strongly suggestive of syphilis of the lung.

DIAGNOSIS

Hitherto the diagnosis of pulmonary syphilis has, like that of encephalitis lethargica, been made mainly by a process of exclusion. There are certain points, however, which would seem to be of rather marked significance in arriving at a positive diagnosis. Of course, certain other conditions, chronic lung abscess, bronchiectasis and empyema must first be excluded. Marked physical signs in the lungs without proportionately grave symptoms to account for them, such as fever, loss of weight, night sweats, dyspnea or pain in the chest should at least put the clinician on his guard respecting lues. Again, a constantly negative sputum after repeated examinations for the Koch bacillus should awaken a reasonable suspicion, after ruling out chronic abscess, which is so often taken for tuberculosis. The presence of other stigmata of syphilis, especially with the added evidence of a positive Wassermann reaction, should awaken one to the necessity of questioning seriously the diagnosis of tuberculosis in favor of syphilis. Lastly, and we believe most imporatnt, is the therapeutic test.

TREATMENT

The treatment of syphilis of the lung must of course follow the lines along which syphilitic infection in general is treated, the result depending largely upon the period in the course of the disease in which treatment is instituted and the thoroughness with which it is pursued. In early cases the arsenicals, arsphenamine, neoarsphenamine and sulpharsphenamine are

valuable, while in the gummatous stage, or in long standing infections, particularly in those cases with actual or suspected heart lesions, it is best to rely upon mercury and iodides. Symptomatically many of these cases respond well; gummata particularly melting away under potassium iodide. Final results, however, can only be satisfactory when we learn to recognize the condition in its incipiency. Fewer cases of pulmonary involvement will occur when primary syphilis receives its proper attention.

SUMMARY

1. One hundred and twenty cases of syphilis of the lung have been carefully selected from the literature and analyzed.

2. The history of syphilis of the lung is as old as the history of syphilis.

3. Syphilis of the lung occurs more frequently than it is recognized.

4. The disease has been most commonly recognized in the early part of the fourth decade of life.

5. It is more common in males than in females, and more fatal in the latter.

6. As recognized in the past, lung accidents are among the latest manifestations of the disease. Ten per cent of the cases occurred as late involvement in hereditary syphilitics.

7. Fifty-five of the 120 patients came to autopsy. Out of 66 patients treated, 56 were symptomatically cured, 5 improved, 1 showed no improvement and 4 died.

8. Eighty per cent of the cases showed concurrent or previously active syphilitic lesions, which were clinically recognizable. In addition to this, all of the hereditary cases were stigmatized.

9. Syphilis of the lung is relatively common in association with bone, cutaneous and visceral syphilids, rare in association with central nervous involvement.

10. Twenty per cent of the cases with autopsy showed amyloid changes in other organs. Twenty per cent had syphilitic aortas and 40 per cent syphilitic livers.

11. Trauma apparently plays a very small part in the localization of the spirochete in the lung.

12. None of the cases had previously received proper anti-syphilitic treatment; in most, treatment had been desultory. In 37 per cent of the acquired cases primary infection was denied.

13. Of the 55 cases with autopsy only 4 were correctly diagnosed ante mortem.

14. Fifty-five per cent of the cases had been diagnosed and treated as pulmonary tuberculosis. In 24 per cent the diagnosis was made upon the appearance of associated syphilitic lesions. In 35 per cent of the cases the diagnosis was determined after the therapeutic test.

15. Syphilis of the lung in the early secondary or florid period of infection is not well established. However, it is reasonable to believe that lesions corresponding to the cutaneous exanthemata may well occur in the lung at the time of the generalized spirochetosis.

16. Syphilis of the lung occurring together with pulmonary tuberculosis is the commonest type of syphilitic pneumopathy.

17. The pathology of syphilis of the lung is the new pathology of syphilis established by Warthin, and the diagnosis is essentially microscopic.

18. Syphilis of the lung is commonly classified as, (a) interstitial pneumonia, which occurred in 50 per cent of the cases with autopsy. (b) gummata, which occurred in 59 per cent of the cases with autopsy; (c) syphilitic pulmonary sclerosis or fibrosis, which occurred in more than 50 per cent of the cases with autopsy; (d) bronchiectasis, which occurred in 47 per cent of the cases with autopsy, and (e) suppurative processes, ulceration and gangrene. Suppuration was noted in 13 per cent of the cases with autopsy, cavity in 22 per cent of the cases with auotpsy, and gangrene in 1 case with autopsy.

19. The symptoms of pulmonary syphilis are the symptoms of pulmonary tuberculosis.

20. The physical signs of pulmonary syphilis resemble the physical signs in pulmonary tuberculosis.

21. In the clinical cases without autopsy the upper lobes were involved about twice as commonly as the bases. Nearly half of the cases showed involvement of both lungs.

22. The roentgen ray has been a valuable factor in the past in differentiating syphilis of the lung from other conditions. It should become increasingly valuable in the future.

23. At autopsy both lungs were involved in 36 per cent of the cases. The lesions were much more common on the right side, 68 per cent showing involvement of the right lower lobe, 55 per cent of the right upper lobe, and 43 per cent of the right middle lobe, while only 36 per cent showed involvement of the left upper lobe and 36 per cent of the left lower lobe.

24. Syphilis of the lung most frequently involves the upper lobes first, the process proceeding downwards. It is more common on the right side.

25. Pathology in the apices by no means precludes the possibility of syphilis. Involvement of the middle or bases of the lungs speaks for syphilis.

26. Certain points have been stressed upon in the diagnosis of pulmonary lues which should make the recognition of the condition somewhat easier than it has been heretofore.

27. Treatment of syphilis of the lung is the treatment of syphilis as found in any part of the human body.

PUBLIC HEALTH ACTIVITIES

Edited By

MICHIGAN DEPARTMENT OF HEALTH

THE DIAGNOSTIC VALUE OF BLOOD CULTURES

During the fiscal year ending July 1st, 1924, the laboratories of the Michigan Department of Health cultured 1,280 specimens of feces for typhoid bacilli, made 610 tests for the Widal reaction, and cultured 101 specimens of blood for typhoid bacilli. These figures are interesting for they show to what extent and in what way the physicians make use of the state laboratories in typhoid diagnosis. Based upon the established value of laboratory procedures as an aid to diagnosis in typhoid fever, the figures should be 1,280 blood cultures, 610 specimens of feces, and 101 Widal tests; for in laboratories where specimens are collected and cultured under optimum conditions, bloods are positive for typhoid bacilli in practically 100 per cent of the cases when taken in the first week of the disease, feces about 10 per cent, and the Widal tests negative.

Of the 101 specimens of blood submitted for diagnosis in suspected cases of typhoid fever, 12 were positive for typhoid bacilli, five for streptococcus viridans, one for hemolytic streptococci, one for diphtheroids, 20 for staphylococci, 18 were contaminated, and 44 were sterile. So low a percentage of positive findings is scarcely a recommendation of blood cultures as an aid in diagnosis. There are, however, several factors to be considered in relation to negative bacteriological findings. These are, viability of the organisms in bloods one to three days in transit, cultural methods employed in the laboratory, the day of disease on which blood is collected, and finally, clinical diagnosis. As the clinical information in the laboratory is not complete there is no way of arriving at the actual value of negative findings, so that the above findings may in any number of instances have been on cases which were not clinically typhoid fever.

We feel that more of our negative findings are due to the time the specimen is collected than to bacteriological procedure. At one time it was the consensus of opinion among bacteriologists that blood must be cultured immediately on collection from the patient to insure the recovery of any organisms, if present; the more delicate the organism, the more important this point in technic. The reason for the great haste was to prevent the inhibitory action of the antibody content of the blood upon the organism. Recent investigations[1], however, have shown that as good results may be obtained from clotted blood as from diluted blood, provided the procedure is modified to meet the physical factors. Most of the specimens received in the state laboratories are clotted blood. We have modified our procedure to meet this condition, and feel that the loss of the organisms in transit is minimum.

There is no doubt that the time of collection of blood materially affects our results, for it is shown by the laboratory records that bloods are collected on any day of disease from the first to the twenty-first. It is the writer's experience that the blood culture after the first week of disease yields negative results in direct relation to the time of illness; about 50 per cent during the second week, and practically 100 per cent in the third week, except in relapses when the bacilli again enter the blood stream.

With these facts in view we can appraise the value of the negative findings on blood cultures. If the blood is collected early in the disease, and optimum cultural conditions furnished by the laboratory, a negative result would indicate further search for the cause of the infection. It is an established fact that all enteric fevers that simulate typhoid fever are not typhoid fever, and medical experience has shown that endocarditis[2] also simulates typhoid fever. The following table shows bacteriological findings in relation to clinical diagnosis on a short series of cases in which the physicians furnished the laboratory with information in regard to the final disposition of their patients:

The Diagnostic Value of Blood Cultures

DIAGNOSIS	BACTERIOLOGY	RESULT
Pneumonia	Hem. Strep.	Recovery
Typhoid	Strep. Viridans	Recovery (Widal neg. at end of 2 weeks.)
Septicemia	Strep. Viridans	Death
Pneumonia	Strep. Viridans	Recovery
Puerperal Septicemia	Hem. Strep.	Death
Typhoid	Strep. Viridans	Recovery
Puerperal Septicemia	Strep. Viridans	Recovery
Empyemia	Strep. Viridans	Recovery
Multiple Abscesses	Strep. Viridans	
Indefinite Fever	Strep. Viridans	Death after long illness.
Encephalitis	Strep. Viridans	Incomplete recovery
Pneumonia	Strep. Viridans	Incomplete recovery
Septicemia	Hem. Strep.	Incomplete recovery (Complicated by endocarditis, frontal sinus).
Puerperal Septicemia	Hem. Strep.	Death
Facial Erysipelas	Hem. Strep.	Death
Septic Finger	Hem. Strep.	Recovery
Puerperal Septicemia	Hem. Strep.	Death
Puerperal Septicemia	Hem. Strep.	Death
Puerperal Septicemia	Hem. Strep.	Death
Typhoid	Strep. Viridans	Recovery

The above table obviously needs no discus-

sion, but even a bacteriologist is impressed by the number of recoveries. One might wonder as to how much physical fitness is meant to be read in the word "recovery" as noted on the histories of these cases.

To continue the discussion of the bacteriology of blood cultures, which brings us to the question of contamination, our first consideration is staphylococcus. Staphylococcus, although considered by the bacteriologist as a widely distributed saprophyte, and of little pathological significance, is not always so harmless as we would think. The medical man, no doubt, feels differently as evidenced by medical literature in which staphylococcus has been proved to be the invading organism. It has been the writer's practice, when working in hospital laboratories, to immediately check the findings of staphylococci in blood cultures. In public health laboratories, however, where distances between patient and laboratory are apt to be great the interpretation of a finding of staphylococci must of necessity be left to the doctor. His difficulty in checking is apparent, for by the time the laboratory report has been returned to him via the mail bag, the organism may have disappeared from the blood stream so that a subsequent negative finding proves nothing.

With these facts in mind it is the practise of the state laboratories to report staphylococcus as "Found" and report only those cultures showing hay bacilli or other well recognized contaminating organisms as "Contaminated." A report of a contaminated blood culture does not necessarily throw any discredit on the doctor's technic as a few irate gentlemen have thought in the past. A contamination may mean that the container sent out by the department is contaminated, or that the bacteriologist has contaminated the blood during the process of culturing, or that the doctor contaminated the blood during the collection. The containers of the department are carefully checked for sterility and should be practically free from contamination, but at best neither the Wassermann vial nor the jar with the upressit cap are as satisfactory as the Keidel tube.

There has been considerable experimental work done not only in the laboratories of the Michigan Department of Health, but in other public health laboratories, to determine the best method for transporting blood for culture. Bile[3] medium has been found very satisfactory for typhoid bacilli, but is not satisfactory for other organisms. Since the blood culture has considerably more value in a doubtful case of typhoid fever than in a well defined case the department has not thought it advisable to adopt two containers, one for typhoid fever and one for diagnosis of other fevers. The Keidel tube, to date, has been considered too expensive to be practical for free distribution. It remains, however, the best and the most convenient means available for the collection of blood and for transportation.—C. C. Y.

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2. Osler and McCrae: The Principles and Practice of Medicine, p. 797. Appleton & Co. 1922.
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A BREAST FEEDING SURVEY IN A RURAL COUNTY

Michigan's infant mortality rate is higher in some of the rural districts than it is in the more populous communities. The state's average infant mortality rate for the years 1921, 1922 and 1923 was 78.1, while in certain rural counties the average number of infant deaths for each thousand of living births was as high as 122.8, and 145.0. While many contributory factors are undoubtedly responsible, the results of a breast feeding survey conducted in Alger County at least partially explain the great number of infant deaths in sparcely populated communities.

Alger County was selected for the survey as a typical rural county. For the years 1921, 1922 and 1923, the average number of infant deaths per thousand living births was 92.0, a figure considerably in excess of the infant mortality rate for the state. The survey was conducted as a preliminary measure to an educational campaign for breast feeding. A nurse visited the homes of all babies whose births were registered between January 1, 1923, and the early spring of 1924. The baby's breast feeding history was obtained, if possible, from the mother. The following data was secured in each case: name, date of birth, address, nationality of mother, occupation of father, how long breast fed, why weaned, what is being fed, home conditions, and condition of the baby.

The homes of 149 babies were visited and histories obtained. Of these homes, 43 or 29 per cent were in good sanitary condition, 65 or 44 per cent in fair condition, and 41 or 27 per cent of the homes were poorly cared for. The survey was inclusive, and was not confined to families of any single economic or social group. These homes represent a fair cross section of the county as a whole.

The months of life during which the 149 babies were breast fed are grouped in the following table, together with the number of babies in each group:

No. Months Breast Fed	Number of Babies	Per Ct. of Babies
Less than 1 month	42	28.19
1 month to 5 months	36	24.16
6 months to 1 year	51	34.23
Over 1 year	20	13.42
Total	149	100.00

More than a quarter of the 149 babies were breast fed less than one month (28.19 per cent), and 52 per cent of them were nursed less than six months. Mother's milk is so generally

recognized as the best food for young infants that these findings require no comment. They show very plainly that rural Michigan mothers are for some reason not performing one of the most important of maternal functions.

Further study reveals the fact that American women do not nurse their babies as long as mothers that come from foreign countries. The survey included 102 babies whose parents were Americans and 47 whose parents were foreign born. There were 33 babies of American parentage who were not breast fed at all, or who were breast fed less than one month, as compared with 9 babies whose mothers were of foreign nativity. Over half of the foreign born mothers nursed their babies more than six months. This was true of a smaller percentage of American mothers (45.10 per cent). If the reasons given for weaning the baby are considered, it is found that 28 of the 35 mothers who are known to have weaned their babies under six months because of an insufficient quantity of milk, were native born, while there were only seven foreign born women who reported this difficulty. Eighty per cent of a representative group of native Michigan mothers did not have enough milk to nurse their babies, and only 20 per cent of foreign mothers. These percentages cannot be attributed to economic causes. Foreign born women would naturally have more strenuous household and other tasks to perform besides caring for the baby.

Illness, the quality of milk produced, or other good medical reasons often make it necessary for the physician to advise weaning the young infant. However, it was found that breast feeding was usually discontinued without medical consultation. Of the 42 babies who were breast fed less than the first month of life, only one was weaned upon the advice of the family physician. Only five of the eighty babies for whom this information is available were weaned because the doctor thought it best.

The mothers gave a number of reasons for weaning the baby. They may be tabulated as follows. The classification "all others' is a miscellaneous group which includes such reasons as a succeeding pregnancy, the death of the mother, or lack of time to nurse the baby:

Reason for Weaning	No. of Babies	PerCt. of Babies
Insufficient milk	35	47.30
Milk did not agree	21	28.38
Illness of mother	12	16.22
All others	6	8.10
Total	74	100.00

An insufficient quantity of milk, and a poor quality of milk were the reasons most frequently given for cessation of breast feedings.

Modified cows milk was the favorite artificial food. This was given to 57 babies. Condensed milk, which was used in 30 cases, came next, and these were supplemented by a variety of proprietary foods, and cereal preparations. An interesting detail is that only four babies under six months of age were given orange juice, in spite of its supposedly general use as an essential and valuable means of furnishing vitamine A to artificially fed infants.

After all, is breast feeding such a distinct advantage, and does it bear any direct relationship to the nutrition and health of the baby? The Alger County results show that the correct answer to this question is unmistakably in the affirmative. Of the 65 babies who were breast fed more than six months, 54, or 83.08 per cent, were found to be in good condition, and only 11, or 16.92 per cent in poor condition. It was found that 46, or 80.70 per cent of the 57 babies weaned during the first six months of life were in poor condition, whereas 38, or only 41.30 per cent of the 84 babies in good condition were breast fed less than six months. The survey demonstrated that the nursing baby has a better chance of remaining in good condition.

The Alger County survey has been followed by an educational campaign, the necessity for which it made so very clear. This county is typical of rural Michigan, and there is an equally urgent need for material education throughout the state. American mothers have probably weaned their babies as a matter of thoughtless convenience, and have substituted a variety of unsatisfactory methods of infant feeding without seeking a physician's advice. The insufficient quantities of mothers' milk could have been prevented by sensible prenatal care in many cases. The breast feeding survey reveals one source of high infant mortality. It proves conclusively that the mothers of Michigan must be taught the value of prenatal care and of medical supervision during the first year of the baby's life.—B. M. H.

LETHARGIC ENCEPHALITIS

The fact that lethargic encephalitis has been present in many parts of the world the past few years and that during 1924 Great Britain experienced quite a severe epidemic, makes it of interest to review the situation in Michigan.

At no time has this disease assumed epidemic proportions in this state. The State Commissioner of Health, with the consent of the Advisory Council of Health, made the disease reportable on March 2, 1921, but few cases have ever been reported. In 1923 there were 65 cases reported and in 1924, 45 cases, a total of 110 cases for the two years. During this same period, however, lethargic encephalitis has been certified as the cause of death on 105 certificates—54 in 1923 and 51 in 1924.

Of these deaths, 60 were males and 45 females. The age distribution was quite general, the greatest number being found between the ages of 25 and 50, in which group there were

52 deaths; under 25 there were 34 and over 50 there were 19. Twelve deaths were children under 5 years of age.

The seasonal distribution of these deaths was as follows:

January	8	August	4
February	18	September	3
March	16	October	5
April	12	November	4
May	10	December	4
June	11		
July	10	Total	105

This seems to indicate that the spring months are the months of highest incidence, but the number of cases is too small to establish any rule.

We must always consider the possibility of error in diagnosis in this disease, as there is no laboratory aid in the diagnosis and but few of these cases were posted, and the further fact that but few physicians have had the opportunity to see cases or to study the disease at first hand.

We may conclude, therefore, that up to the present time lethargic encephalitis is not a serious problem in Michigan.—W. J. V. D.

DIPHTHERIA

Michigan's first county diphtheria protection campaign is well under way. Through the cooperative efforts of physicians, health officers, school officials, and interested laymen, every child in Ionia County is being offered toxin-antitoxin immunization without charge. The final results of the first series of protection clinics are as follows:

Place	No. Children Immunized	Estimated Population Under 15 Years of Age	Estimated Per Cent Population Under 15 Immunized
Portland	436	532	81.95
Ionia	1223	1942	62.98
Lake Odessa	269	349	77.08
Belding	580	1095	52,97

Only children who received the complete series of three weekly doses of toxin-antitoxin are included in the above tabulation. The remainder of the county is being immunized as rapidly as possible.

The results from the first group of clinics show that community diphtheria protection campaigns are thoroughly practical undertakings. In each one of the Ionia County towns where toxin-antitoxin was given, the community immunization plan was enthusiastically received. Parents gladly availed themselves of the opportunity for protecting their children against diphtheria. Similar campaigns would be welcomed just as heartily, if sponsored and carried out by the physicians who practice in Michigan cities and villages.

It seems quite likely that we shall soon be able to control scarlet fever by means of a skin test for susceptibility and a preparation for active immunization. No matter how encouraging the recently published studies on this disease may be, we must remember that for the time being, scarlet fever can be held in check only by the strict observance of quarantine. The present state regulation requires a twenty-eight day quarantine. There have been two Michigan scarlet fever epidemics recently, each of them with over a hundred cases, and directly traceable to the failure of the local health officials and physicians to enforce the twenty-eight day quarantine rule. Speculation about the matter, and the recital of a few individual cases which recovered in shorter time are interesting conversationally, but experience always shows that the twenty-eight day period must be conscientiously adhered to. As yet there is no other certain method for preventing the spread of scarlet fever.

PREVALENCE OF DISEASES

February Report

Cases Reported

	Jan. 1925	Feb. 1925	Feb. 1924	Average
Pneumonia	522	596	709	1,353
Tuberculosis	448	535	257	307
Typhoid Fever	54	31	26	41
Diphtheria	421	302	632	670
Whooping Cough	502	440	224	479
Scarlet Fever	1,310	1,368	1,510	1,214
Measles	707	692	2,343	1,465
Smallpox	151	59	543	397
Meningitis	13	12	10	19
Poliomyelitis	4	8	3	3
Syphilis	1,215	1,067	1,157	823
Gonorrhea	827	739	836	780
Chancroid	17	8	20	18

CONDENSED MONTHLY REPORT

Lansing Laboratory, Michigan Department of Health, February, 1925.

	+	—	+—	Total
Throat Swabs for Diphtheria				3382
Diagnosis	79	703		
Release	261	688		
Carrier	29	1579		
Virulence Tests	26	17		
Throat Swabs for Hemolytic Streptococci				1800
Diagnosis	243	298		
Carrier	163	1096		
Throat Swabs for Vincent's	13	764		777
Syphilis				9837
Wassermann	906	4015	46	
Kahn	1025	3789	56	
Darkfield				
Examination for Gonococci	141	1513		1654
B. Tuberculosis				448
Sputum	48	381		
Animal Inoculations	3	14	2	
Typhoid				108
Feces	12	38		
Blood Cultures	2	15		
Urine		3		
Widal	8	30		
Dysentery				
Supplementary Examinations				277
Unclassified Examinations				6330
Total for the Month				25737
Cumulative Total (Fiscal year)				164845
Increase over this Month last year				6638
Outfits mailed out				11380
Media Manufactured, c.c.				298925
Diphtheria Antitoxin distributed, units				12704000
Toxin Antitoxin distributed, c.c.				42580
Typhoid Vaccine distributed, c.c.				1205
Silver Nitrate Ampules distributed				1700
Examinations made by Houghton Laboratory				1547

The Journal
OF THE
Michigan State Medical Society
ISSUED MONTHLY UNDER THE DIRECTION OF THE COUNCIL

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FREDERICK C. WARNSHUIS, M. D., D. Sc., F. A. C. S.
Grand Rapids, Michigan

Entered at Grand Rapids, Michigan, Postoffice as second class matter.
Acceptance for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917, authorized August 7, 1918.

All communications relative to exchanges, books for review, manuscripts, news, advertising and subscriptions are to be addressed to F. C. Warnshuis, M. D., 4th Floor Powers Theatre Building, Grand Rapids, Michigan.
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Subscription Price—$5 per year, in advance

APRIL, 1925

Report Malpractice Threats Immediately to Doctor F. B. Tibbals, 1212 Kresge Building, Detroit, Michigan.

Editorials

ARROWSMITH

While recuperating from the "barks and aches" of a recent attack of grippe, we noted the following review that was published in the Journal of the American Medical Association. We got the book and were so well entertained by it that we are passing the news along.

Arrowsmith. By Sinclair Lewis. Cloth. Price, $2, net. Pp., 448. New York: Harcourt, Brace & Co., 1925.

To the distinguished line of novels of medical interest that have been commented on from time to time in this department we may now add the latest work to come from the pen of Sinclair Lewis, known to medical readers particularly for the character of Dr. Will Kennicott in "Main Street." The son and the brother of physicians, reared in a medical atmosphere, Sinclair Lewis approached the writing of Martin Arrowsmith with unusual capabilities. He realized, however, the limitations under which any lay writer must labor in approaching a medical subject, and he took with him, as assistant and counselor, Paul De Kruif, Ph.D., formerly assistant in the department of bacteriology in the University of Michigan, and later member of the staff at the Rockefeller Institute. It is not surprising, therefore, to find in the novel much of the atmosphere of the life of De Kruif.

The first physician to enter the story is old Doc Vickerson, a good physician gone to seed trying to overcome the deadlines of a backward community. To him comes Arrowsmith as apprentice. Then, for perhaps the first third of the novel, we accompany Martin Arrowsmith through the university and the medical school. Here is accurate picturization of medical education mingled with biting satire at human frailty among the educators as well as among the young men who are trying to conform to the rituals and rules and regulations. In all our great schools, the intensely individual student has a difficult time. The boy who is somewhat different about thinking for himself, about working out ideas of his own, about proceeding a little faster or on a different road from the rest of the crowd, is likely to find himself buffeted about by the other kernels that are passing through the mill in an orderly manner. Sometimes the youth finds a sympathetic preceptor among the austere members of the faculty. When he does, his road is made easier and he is likely to have at the end an entirely different point of view from that of the anti-social being who has had no help in making the proper accommodations.

There comes early on the scene also in "Arrowsmith" Professor Gottlieb, prototype of the true scientist, living only for his research, never compromising with dishonesty. So far as we know, the character of Gottlieb is unique in fiction. He towers as an inspiration above the lesser people in this novel. For him there is none of the Lewis satire that devastates the minor medical personages. Such people as Dr. Angus Duer, who even as a student had his mind constantly fixed on money, as Ira Hinkley, medical missionary who was constantly adjusting science to religion, as Dr. Cliff Clawson, whose low ideals made him impossible as a physician, lend themselves readily to the piercing darts of humor. Even more pregnable is the famous Dr. Pickerbaugh, evangelistic health officer of the Eddie Guest school of hygienic poetry. Perhaps never before has Lewis reached the heights of satirical delineation that are reached in chapters of "Arrowsmith" dealing with the subject of "weeks", from old home week and go to church week to swat the fly week and better babies week, culminating at last in the great health show.

The novel takes Martin Arrowsmith through the career of country physician, health officer, member of a group clinic, and research worker in the great McGurk Institute to the combat of an epidemic of plague in the West Indies and at last to the life of a recluse investigator in the North woods. Through this runs romance, from the feeble flame of love that flickers at first for a college widow, through the marriage with Leora, most human of all of Sinclair Lewis' women, to the unsuccessful union with Joyce Lanyon, wealthy offspring of high society. And throughout this majestic novel, character after character appears and reappears, carried out perfectly to the existence for which his type, as first portrayed so perfectly, logically fits him.

"Arrowsmith" is the story of an individual, an analysis of the spirit that animates the investigator and drives him perhaps more strongly than any other motive in life, unless it be passion or hunger. It is told as only our leading realistic novelist can tell about things for which he feels real interest. It is told with that fire of the crusader which makes sentences burn and imbues words with living flame. It can do scientific medicine nothing but good, for it will aid to make many persons comprehend who now do not understand, and to make many others seek further information, that they may comprehend the aims and progress of medicine more fully.

MEDICAL EDUCATION

At the present time the medical profession and the medical schools are greatly disturbed by the problem—how to educate a doctor. As most medical schools are a part of state univer-

sities and the teaching of medicine is being directed by an association of the faculties of these medical schools, one might think that such a proposition could easily be settled. But who directs the thought of the association?

One may discover such a power in a book entitled, "Medical Education, a comparative Study," written by Abraham Flexner and published by the Macmillan Company. The writer has presented a concise history of the development of medical education in all countries, giving special attention to the changes wrought in the last fifteen years, also comparing the methods employed and the results obtained.

Medical schools are classified into three types: the clinical, university and the proprietary. The proprietary schools, at one time so common in this country, have entirely disappeared. The inception of the university type of medical school in this country began when Dr. Eliot began his presidency at Harvard, but with indifferent success. The true model did not appear until 1909, when the hospital of the Rockefeller Institute for Medical Research was established and the express provision was made "that no member of the staff should engage in paid private practice." In 1913 John Hopkins Medical school was able to finance a full time group in medicine, surgery and pediatrics.

One will readily understand that the ideal university type will have all chairs, clinical as well as laboratory, filled with full time men. In the United States, the full time professor and staff are so salaried that the hospital and the medical school command their entire time for the care of patients, for the instruction of students, and for research. No limitation whatsoever is placed upon the instructor's freedom to see and treat patients inside or outside the hospital in order to gain experience or to render service; he is simply freed from the necessity of earning any part of his livelihood by private or consulting pracitce."

How shall the full time professor and his staff be paid, as they can never be satisfied with the nominal salary which is given when they are allowed to practice? Their salaries may be paid in part by the hospital and university or by the hospital entirely. The hospital may be supported entirely by the state and become a free hospital, or patients may be charged fees by the hospital management to defray expenses and pay at least a part of the salaries of the full time men.

When fees are charged, the hospital should use great tact, not to enter into competition with outside physicians. How much may accrue from such fees is problematic. One institution with four full time departments averaged $13,000 and another something more than $8,000. A university is quoted as paying a full clinical professor the following plan. The university obligates itself to pay $7,500, to which he may add consultation fees not to exceed $2,500. "It remains to be seen whether medicine can be generally converted into a university discipline, or whether proximity to a prosperous practising profession will result in professional rather than academic standards of living."

Behind the clinical teacher is the full time laboratory man who puts himself in that position to guard his secrets and finish his own experiments. Johannes Muller in 1850 taught at Berlin all the pre-clinical sciences. The clinician listened, then became interested and now is so thoroughly intoxicated that he does not think of giving a diagnosis without pushing the laboratory button for reports. The art of medicine requires a careful combination of a knowledge of the sciences. An able teacher for each. To fill the ideal requirements the clinicians must be planted in the laboratories, and later be developed in the hospitals.

"The moral is plain. The medical faculty cannot and must not compete financially with worldly occupations, but it must in the long run, offer salaries adequate to enable competent professors to live at the level prescribed by custom and common practice.

What has happened to medical schools? "With the spread of the scientific conception of medicine, practical training of the individual has come to the fore; teachers of medicine insist that if the student is to learn by doing, his doing must be closely supervised. Hence enrollment is limited on the basis of facilities and staff. Stanford now admits approximately 25 to each class. John Hopkins, which used to admit 100, has successively reduced its classes to 90, 75, 66. The new Vanderbilt and the new Chicago schools are planned for classes not to exceed 50."

Within the last ten years the number of medical schools has diminished from 160 to 80, and the author maintains that there are still too many, and that "the American medical school is already over-complicated and over-administered."

The last chapter is upon costs and when the author comes to compare these with the possible results he confesses to a bad dream.

"It is not altogether idle to dream dreams; but in its present complexity, no single science, and still less the large group of sciences comprised in the medical faculty, can be schematically organized and developed." Philanthropists may give buildings and funds may be secured for endowments, but men have learned to sell themselves to the best advantage.

How seriously is our own University Medical school involved in this method? Five years ago the faculty decided to put two departments of surgery and medicine on full time. The plan employed was according to the rules presented above with some variations. The de-

partment of surgery has been successful, but the chair of medicine has been vacant for some time. This does not mean that medicine has not been taught. It only means that there is something wrong with the university plan in our school.

The University of Michigan Medical Department was one of the first to have its own hospital. Soon the new hospital, with every facility for teaching medicine, will be opened. The clinical and the laboratory departments will be partially united in name and, let us hope, in spirit as well. This school has been successful in making good doctors and this year will graduate about 140. The State Medical Examining Board will probably discover that these students know enough of the sciences to practice the art of medicine without discovering how much of the unnecessary they have learned.

Two things are necessary for medical training; interest and a capacity for work. Whether full time or part time, the faculty gives the direction and the inspiration. Let us hope that the medical school of the university will not entertain aristocratic ideas concerning education, but will continue to function properly in the making of good physicians.

C. G. Darling.

OCULAR DEFECTS FROM SKULL INJURIES

Dr. J. S. Somberg of New York comments very pointedly and timely to the ocular defects following skull injuries. In this day of so many head injuries resulting from our conjested streets and highways these ocular injuries merit careful treatment and observation. We present the following comment and conclusions of the doctor:

"It is very evident that practically no structure of the eye, including its musculature and the optic pathways, is entirely exempt from involvement following skull injuries. This emphasizes the importance of complete ocular examination immediately following all such injuries or as soon as it is fesible. The general surgeon or the general practitioner who has control of these cases, unless he makes special note or examination of the eyes and their functions, is very apt to overlook these conditions. The reason for this are manifold. Among them may be mentioned the general condition of the patient immediately following the accident, the bandaging of the head and possibly the eyes at the same time, the prominent neurological condition overshadowing all other condition, closure of the lids by ecchymosis or edema, and the more or less disoriented, dazed condition of these patients for several days following the injury.

Undoubtedly, the general practitioner or surgeon may be able to recognize the majority of these conditions. However, it is advisable, wherever possible, to have a complete ocular examination by a competent ophthalmologist in all such cases, so that what may be an apparently trivial condition and one which is easily overlooked should be noted and appropriate measures taken for a possible correction.

Just a word may be said here regarding the possibility of differentiating old, pre-existing or coinciding lesions from conditions which may have really resulted from the injury in question. At times such a differential diagnosis becomes exceptionally difficult, in fact impossible, unless there have been previous eye examinations. One of the most common points for controversy is the fact that very often there has always been a pre-existing condition, or possibly a congenital amblyopia which has been overlooked by the patient, or at least not recognized. Following the accident the patient's attention will be drawn to his eyes very frequently, and there will then be noticed a diminution of vision in one eye, which the patient will maintain never existed before the injury. In some of these congenital amblyopias there will be a concentric contraction of the field which will simulate a hysterical or a functional amblyopia and which can only be differentiated from it by the rest of the examination.

Malingering is another phase of the subject which makes an absolute diagnosis often difficult, and oftimes impossible. Some of these patients will be found, especially if the condition has existed for some length of time, to be well-trained, and only by repeated examinations with a careful notation of the findings at each examination so that no change can really occur, can a differential be made.

Conclusions—

1. Any structure of the eye or its musculature or the optic pathways may be involved in skull injuries.
2. Fractures of the skull are not necessary for such involvement.
3. The severity of the concussion is not always the determining factor in the amount of intracerebral or ocular damage.
4. Functional conditions are very apt to result from a very slight skull injury, without any concussion of the brain.
5. Ocular conditions resulting from skull injuries are often overlooked due to various factors.
6. Functional ocular involvement usually subsides within a definite period, but if it persists, malingering should be suspected.
7. Ophthalmological examination is indicated in all skull injuries, no matter how apparently trivial they may be.

CHIROPRACTIC BILL

Two bills have been introduced in the legislature to license "chiros." We append the following expert analysis of the house bill. We want our members to read it, percieve the points made and then present these arguments to your local representatives. Local legislative committees should become aggressive.

Memorandum relative to House Bill No. 219, a bill to regulate in the State of Michigan the practice of chiropractic, providing for the appointment of a Board of Examiners, etc.

There are three outstanding defects in this bill, quite aside from any question as to the merits of chiropractic:

1. The bill undertakes to denounce certain conduct as criminal, without defining the conduct thus denounced.
2. The bill undertakes to legislate regarding a stated subject, chiropractic, but leaves the definition and delimitation of that subject to an unofficial, unorganized body.
3. The subject matter of the bill is already amply covered by existing law.

In addition to the objectionable features of the bill pointed out above, there are certain other objections to it, based on secondary results that would follow

its enactment that are not apparent on the face of the bill itself.

* * * *

1. The prime objection to this bill is that it undertakes to make certain conduct unlawful, but does not define that conduct so as to enable those who must live under the law and those who must enforce the law to know just what is and what is not forbidden. Section 3 provides in part as follows:

"Any person who by means of advertisements in directories or in the public press or by cards or signs or in any other way shall *hold himself or herself out to the public as a chiropractor* or who shall actually *give any chiropractic adjustments* for hire without first obtaining a license to practice chiropractic in this state shall be guilty of a misdemeanor and upon conviction thereof shall be punished by a fine of not more than two hundred dollars ($200) or by imprisonment in the county jail for not more than six (6) months, or both, at the discretion of the court; provided that this shall not apply to clinics called by an incorporated college or school of chiropractic."

Nowhere in the bill, however, is there any definition of "a chiropractor" or of the "chiropractic adjustment."

It is true that the first sentence of Section 3 provides that,

"The license provided for in this Act shall entitle the holder to practice chiropractic as taught in the schools and colleges of chiropractic."

This, however, is at best very indefinite, a matter that will be discussed more at length below. Only by implication, too, does it forbid the holder of a license to do things that are *not* "taught in the schools and colleges of chiropractic," and at best it is a very indefinite sort of a prohibition on persons who are not holders of chiropractic licenses to inform them what they must refrain from doing. It is an elementary principle in the drafting of a criminal statute that it shall be made so clear that any citizen will be able to understand what it commands or what it forbids, and not leave the matter to interpretation by the court after the defendant has been charged with an offense. The phraseology of this bill does not meet that requirement.

What has been said in the preceding paragraph with respect to the definition of the term, "chiropractor," applies with even greater force to the failure of the bill to define the phrase, "any chiropractic adjustments." Any disinterested person familiar with the history of chiropractic knows that it is simply the bastard offspring of the osteopathy of Still and the magnetic healing of Palmer, Sr. In consequence, there is a certain similarity between the spinal manipulations of the osteopath and the so-called chiropractic adjustments of the chiropractor. When the spinal manipulation of the osteopath passes over into the spinal adjustment of the chiropractor would be a difficult thing to tell, in the absence of clear definition of both of these terms, and the osteopaths of Michigan would practice their callings at their peril, if this bill should become a law. Moreover, since a spinal adjustment is merely a replacement—or a pretended replacement—of a dislocated vertebra, a surgeon who undertook to replace a displaced vertebra would find himself running afoul of the chiropractic law.

If the proponents of this bill deem it expedient that persons generally should be forbidden to hold themselves out as chiropractors or to give chiropractic adjustments, unless such persons had proved their fitness —whatever that may be—to do so, it would be interesting to know why they should undertake to except from this rule "clinics held by an incorporated school or college of chiropractic." In the first place, what is a clinic? While the term at one time meant a teaching process, it has now come to mean also an organization and method for treating the sick. Under the proposed law would any organization and method for treating the sick, as by group practice, if conducted by an incorporated college or school of chiropractic be lawful? If so, what is to prevent any group of persons, whether having any knowledge of chiropractic or not, from organizing under the general incorporation laws of some state or of the District of Columbia—possibly of Michigan—"an incorporated college or school of chiropractic," and then proceeding to carry on in a wholesale way the treatment of the sick by spine punching? Or even if we concede that the privileges accorded by this exemption would be utilized only by bona fide schools or colleges of chiropractic, are they to be without limitation as to the character of their subordinates whom they entrust "analyzing" and "adjusting" the spines of their patrons? The wholesale and dangerous way in which spine punching is carried on in some institutions undertaking to teach chiropractic is shown by a recent catalog of the Ross College of Chiropractic, Fort Wayne, Indiana, which shows that one student, during his "clinical term," made 8,103 chiropractic adjustments. Another gave 6,528 chiropractic adjustments"; another 5,000; another 4,125; and so on downward. If one were to take such statements at their face value, would it be possible to believe that each and every such student adjustment had been adequately supervised by some licensed chiropractor? And if not, what protection has the poor public from the spine punching student?

2. The bill undertakes to legislate regarding a stated subject, chiropractic, but leaves the definition and delimitation of that subject to an unofficial, unorganized party. Nowhere does the bill define chiropractic. Nowhere does it authorize any state agency to definite chiropractic. The enactment of this bill in its present form would be in effect an abdication of the legislature of Michigan in favor of "the schools and colleges of the chiropractic," in the country at large. The legislature would in effect lay down certain rules with respect to something that it called "chiropractic" and then say to the schools and colleges of chiropractic—not merely those of Michigan, but those of the country generally—now you tell the people and the courts what we have been talking about; for Section 3 of the bill provides:

"The license provided for in this act shall entitle the holder to practice chiropractic *as taught in the schools and colleges of chiropractic.*"

Possibly, a strict construction of the bill would interpret this to mean the practice of chiropractic as taught in the schools and colleges of chiropractic at the time the bill was enacted. If that is the intent of the framers of this bill, then there is no reason why they should not write into the bill exactly what is taught at the present time in such schools and colleges. Certainly they are presumed to know what is there taught, if a knowledge of curriculums of such schools and colleges is ascertainable; and if it is not ascertainable, then the authority the law purports to confer on holders of chiropractic licenses is so vague as to be meaningless. If, however, as the proponents of this bill probably intend—and as they will contend if the bill be enacted—chiropractic is supposed to be a variable quantity, and "chiropractic" as the term is used in this bill is supposed to mean one thing today, another tomorrow, and another the third day, according as the chiropractic schools teach one thing or the other, the enactment of any such legislation would obviously be dangerous. It would be necessary only for some eighteen-months chiropractic schools to undertake to teach major surgery and the use of drugs of all kinds to confer on the chiropractors of Michigan the right to practice major surgery and to use such drugs, even though such chiropractors were absolutely innocent of any knowledge of sur-

gical anatomy or of surgery or of pharmacology or therapeutics.

Other questions would arise under any such law as is here proposed. How many schools and colleges of chiropractic would have to teach a subject before that subject would become a part of "chiropractic" as taught in the schools and colleges of chiropractic? How would a licensed chiropractor know when a sufficient number of such schools and colleges were teaching a given subject, in order that he might utilize it in his work? In case of prosecution, how would the prosecuting attorney be able to prove that certain given acts of the defendant did *not* come within the scope of the teaching of schools and colleges of chiropractic? How many schools and how many colleges would he have to prove did *not* teach the subject, in order to show that the act had been unlawful? And how would the defendant meet the issue? How many schools and how many colleges would he have to show *did* teach the subject? And how many hours and what nature of teaching would he have to prove in order to show that such teaching came within the meaning of the act?

3. The subject matter of the bill is already amply covered by existing law. The practice of chiropractic is fully authorized and safeguarded by laws now in force in the state of Michigan, notably by Subparagraph Third, paragraph (e) Section 3 of an act to provide for the examination, regulation, licensing and registration of physicians and surgeons, and for the punishment of offenders against this Act, and to repeal acts and parts of acts in conflict therewith, approved May 4, 1913, (citation is from the American Medical Directory, 1923 Edition, 795-797), which is as follows:

"The board is authorized to issue a license or certificate of registration to any person who desires to practice a system of treatment of human ailments or diseases, and who does not in such treatment use drugs or medicines, internally or externally, or who does not practice surgery or midwifery, under the provisions of this Act; provided, that the applicant for such license or certificate of registration shall have an accredited diploma from a high school, academy, college or university, or an equivalent credential, or shall pass an examination to be equivalent to a recognized high school diploma, as provided in subdivision one of this section and shall pass an examination before the board upon the following subjects: anatomy, histology and embryology, physiology, chemistry, bacteriology, pathology, diagnosis, hygiene and public health. This examination shall be concurrent with and equivalent to the examination provided for practitioners of medicine under Section 3, subdivision one, of this Act, and shall be in harmony with the provisions of this section and subdivision covering such examination in the subjects as above specified: Provided, however, that such examination shall be a continuous one and not subject to a division into a primary and a final examination. The fee for such examination shall be fifteen dollars ($15). A practitioner under this subdivision shall not be permitted to use in any form the title of "doctor" or "professor" or any of their abbreviations, or any other sign or appellation to his or her name which would in any way designate him or her as a physician or surgeon, qualified under the provisions of Section 3, subdivisions one and two of this Act, or in violation of the provisions of this Act. All persons granted a certificate of registration or license under the provisions of this subdivision three, shall also conform to the provisions of Act No. 237 of the Public Acts of 1899, and acts amendatory thereto, except as provided in this subdivision."

Obviously, a person licensed to practice under the provisions of existing law as set forth above can practice chiropractic if he sees fit. There is, then, no reason for the enactment of the pending bill. But the motive for seeking its enactment is quite another matter.

The motives for seeking the enactment of this legislation are presumably primarily three in number:

1. *By the enactment of this legislation the chiropractic group will be able to fix standards of its own.* It is obvious that no matter what requirements be fixed by law, if discretion be granted to any administering parties to determine moral character, preliminary education, chiropractic education, and sickness as determined by questions and answers, the actual standards enforced will be those determined upon the bodies to which such discretion is granted.

2. *By the enactment of this legislation, practitioners of chiropractic will be relieved from examination in histology, embryology, bacteriology and pathology.* How would the practitioners of chiropractic pass examinations in hygiene and public health without a knowledge of pathology and bacteriology, it would be interesting to know.

3. *By the enactment of this legislation, chiropractors would be enabled to put "doctor" or any abbreviation of that word before their names.* The enactment of this legislation would repeal the provisions of existing law set forth above, in so far as they relate to the practice of chiropractic, and in that way would repeal the provision that now prohibits a chiropractor from styling himself a doctor. The only other prohibition on the use of the designation, "doctor," lies in the medical practice act, and that prohibits the use of title "doctor" or its abbreviation only "in a medical sense."

Doubtless there are other motives in the minds of those who are pressing for such legislation, such as the possibility of expanding "chiropractic" indefinitely, through the expansion of the curriculums of schools and colleges of chiropractic, as suggested in Section 3 of the bill.

Another objection to this bill—although not a basic objection—is its implied authorization for chiropractors to sign death certificates and perform other similar functions. At least, that I infer is the intent of the following portion of Section 3:

"All persons licensed under this act shall observe and be subject to all state and municipal regulations relative to the control of contagious diseases and shall comply with all the laws pertaining to the public health."

Certainly, without any such legislation, one would expect all licensed chiropractors, in common with all other persons, to "observe and be subject to all state and municipal regulations relative to the control of contagious diseases," and to "comply with all the laws pertaining to the public health." The phraseology stated above is, therefore, unnecessary, unless it has some occult meaning, and such occult meaning is, it is believed, the implication that chiropractors shall do whatever physicians do under the state and municipal regulations relative to the control of contagious diseases and relative to public health. Of course, if chiropractors honestly filed their certificates, certifying that each and every death was due to a dislocated vertebrae, the value of the statistics of the state would be materially reduced. If, however, the State of Michigan is really convinced that tuberculosis, syphilis, gonorrhea, goiter, and intestinal parasites, and all other diseases whatsoever, are due to dislocated vertebrae, there is no reason why the State of Michigan should not express its belief and faith by providing for the licensing of chiropractors in the manner stated; and if it goes that far, certainly it should recognize the value of chiropractic statistics, as an important means for the guidance of the State Health Department in preventing such dislocations.—W. C. W.

SECOND CHIROPRACTIC BILL

A second Chiropractic Bill was introduced in the Senate. We present herewith an analysis of it so that you may present the facts to your senators and representatives.

Memorandum relative to Senate Bill No. 164, Michigan, 1925, a bill to create a Board of Examiners, to regulate the practice of chiropractic, etc.

I.

This bill impresses me as drawn either very negligently or very adroitly. It does not forbid the practice of chiropractic by any one, so that if its purpose is to prevent the practice of chiropractic by incompetent persons it will not accomplish that end. It will, however, provide for licensing, without examination, of at least a part of the chiropractors who have been plying their trade in Michigan for two years or more. It will, however, authorize a coterie of men who have voluntarily organized themselves under the grandiloquent title of "National Board of Medical Examiners" to issue certificates of proficiency to whomsoever they will, and for whatsoever prices they see fit to charge, which certificates will entitle the holders thereof to licenses to practice chiropractic in Michigan, without inquiry by any Michigan agency into their fitness for such work.

II.

Section 12 of the Act provides that, "Any person who violates any of the provisions of this Act shall be punished by a fine not to exceed $300.00 or by imprisonment in the county jail for a time not to exceed three months, or by both such fine and imprisonment." The "provisions of this Act" do not prohibit any one from practicing chiropractic or compel any one to take out a license. They do, however, forbid any one who has taken out a license from practicing anything "but straight chiropractic." (See Sec. 5.) "Straight chiropractic" is defined by Section 4 as follows:

"Chiropractic is defined to be the science of palpating and adjusting the articulations of the human spinal column by the hand only. This definition is inclusive and any and all other methods are hereby declared not to be chiropractic."

Those who are familiar with the chiropractic situation will recognize at once that this bill is not designed to cover and it does not cover chiropractic generally, but covers only one school of the chiropractic dogma. The other is left to shift for itself.

For the benefit of those who are not familiar with the situation it may be said that chiropractors are divided into two distinct factions, between which there is war about as bitter as any that ever existed between non-sectarian physicians and homeopaths. The so-called "straight" chiropractic is a follower of the Palmer School, at Davenport, Ia. He believes, or professes to believe, that each and every disorder to which the human body is subject can be detected and cured by "the science of palpating and adjusting the articulations of the human spinal column by hand only;" Even lousiness, intestinal worms, venereal diseases, tuberculosis, blindness, and cancer yield to such treatment, according to this school of thought. The other chiropractic faction claims certain virtue for "the science of palpating and adjusting the articulations of the human spinal column," just as do the osteopaths with whom this method of treatment originated. But this group of chiropractors, contemptuously dubbed by their chiropractic opponents as "mixers," believe that such manipulations of the back bone must be supplemented by other methods of treatment, such as hydrotherapy, electrotherapy, physiotherapy, and even the use of some drugs. The "mixers" is not a clearly defined group; for while all believe that spinal manipulations must be supplemented by other methods of treatment, the extent to which they would resort to such other methods of treatment depends apparently on the views of the individual "mixer." Obviously, then one purpose of this bill is to procure from the state of Michigan governmental endorsement by the Palmer School. No one could be licensed under the Act, if the bill should become a law, unless he had been graduated by "a chiropractic school or college teaching nothing but straight chiropractic." (See Sec. 3.) No one who had been licensed could practice anything but straight chiropractic; for under the provisions of Section 5 it would be unlawful for him to do so, and he would be subject to fine and imprisonment, and under the provisions of Section 10, he would be liable to have his license revoked.

It certainly would be a somewhat remarkable procedure for the legislature to lend endorsement of the state not only to the theory and practice of chiropractic as a whole, but to lend its endorsement to the theory and practice of that trade as expounded by a scism in it. Certainly, before going so far, the legislature may be expected to call on the University of the State of Michigan and on the State Department of Health to report on the facts underlying the chiropractic hypothesis as to diagnosis and treatment.

The fact that the "mixers" could still ply their trade after the enactment of this bill, just as they do now, in defiance of the medical practice act and without any added difficulty or danger, may induce them to refrain from opposing this bill. If they do, however, it will be quite logical that next year they will come in with a bill of their own for the legalizing of what, for lack of a better term, I presume we must call "crooked" chiropractic. If the "mixers" make this demand, they will certainly be entitled to it quite as much as are the "straight" chiropractors and if the demand of the "mixers" be granted, then each and every pseudomedical sect will be entitled to the same privilege as has been granted these two groups. What the situation will be in Michigan then may be inferred from the following list of pseudomedical sects now before the public:

Aero-therapy
Astral healers
Autothermy
Biodynamo-chromatic therapy
Chromo-therapy
Christos (bloodwashers)
Chromopathy
Coueists
Drugless healers
Electrotonic methods
Electric light diagnosis
Electryonic methods
Electro-homeopathy
Electronapro-therapy
Geo-therapy
Herbalist
Helio-therapy
Irido-therapy diagnosticians
Kneipp cure
Leonic healers
Mental and spiritual healing
Medical gymnast
Mechano-therapy
Naturalogist
Natureopath
Neuro-therapy
Naprapath
Psycho-analyst
Photo-therapy
Physio-therapy
Practo-therapy
Quartz-therapy
Spondylo-therapy
Sani-parator
Spectrocrome
Spectro-therapy
Tropho-therapy
Telathermy
Vitopath
Zodiao-therapy
Zonet-therapy

III.

Aside from the objections to this bill pointed out above, there is a vital objection in the fact that it turns over to many non-resident groups of chiropractors the right to determine who shall and who

shall not practice chiropractic in Michigan, without vesting in any agency of the state of Michigan authority to do anything more than to inquire whether the would-be Michigan practitioner is "of good moral character." (See Sec. 9) which provides:

"Any person of good moral character, licensed by a chiropractic board of any other state or territory or holding a certificate from the National Board of Chiropractic Examiners, shall be licensed without examination upon the payment of $25.00."

It will be noted that the license issued by the chiropractic board of any other state or territory may have been issued under conditions much more lax than those laid down in this bill. It may authorize holders to practice within the jurisdiction wherein it was issued, not only to "straight" chiropractic, but also the "mixed" variety. The licentiate may in fact be a graduate of a school teaching the "mixed" variety, but he can come into Michigan only if he is willing to forego his knowledge of all therapeutic measures other than spine punching. He may have been graduated by a school even more incompetent to teach than are the schools described in Section 3 of the pending bill, and he may have been subjected to an examination far more lax than is the examination called for by Section 6; but nevertheless, if he has been licensed by the chiropractic board of any other state or territory he is entitled, as a matter of right to practice in Michigan.

Moreover, licentiates of other states and territories will be entitled to this right even though such other states and territories refuse absolutely to recognize licenses issued by the state of Michigan.

Of course, there would be at least a modicum of protection for the people of Michigan with respect to the issuance of licenses without examination on the basis of licenses issued by other states and territories; for the issuance of such licenses would be to some degree safeguarded by the provisions of the laws of the several jurisdictions from which such licenses emanated. This would not be true, however, of certificates issued by the chiropractic clique that operate through the so-called "National Board of Chiropractic Examiners." This is a private organization, privately controlled, made up of persons many of whom, if not all, are not residents of the state of Michigan. They are beyond the reach of the state of Michigan. They can change their by-laws and methods of issuing certificates any day they see fit. They can charge for such certificates any price they see fit. So long, therefore, as the certificates issued by this board would entitle the holders thereof to licenses, without examination, to practice straight chiropractic in the state of Michigan, the National Board of Chiropractic Examiners would be at liberty to sell to whomsoever it would, for whatsoever price it would, the right to practice "straight" chiropractic in Michigan.

The provisions of the pending bill authorizing licenses without examination on the basis of licenses issued by the chiropractic boards of other states and territories, and on the basis of certificates issued by so-called "National Boards of Chiropractic Examiners" amounts to but little more than an abdication by the Michigan legislature of its right to regulate "straight" chiropractic in Michigan, in favor of the foreign agencies named above.

IV.

It is rather interesting to find a bill that is presumably designed to insure the adequacy of knowledge and skill of persons licensed under it deliberately formed so as to limit such knowledge and skill. Under Section 3, if a person has graduated from a school or college teaching anything other than "straight" chiropractic he cannot obtain a license. Obviously, the "straight" chiropractors realize that the moment any one studies methods of healing other than those of "straight" chiropractic, he realizes the inadequacy—if not the folly —of the pretentions of the "straight" chiropractor. Even if a "straight" chiropractic has any knowledge whatsoever of simple remedies and emergency treatment, he must leave that knowledge behind when he enters upon the practice of "straight" chiropractic in Michigan. If he should recommend a soda mint tablet for acid stomach, or a dose of Epsom salts or castor oil as a laxative, he would be subject to fine and imprisonment, and his license might be taken away from him. If some one by mistake, believing the chiropractic to be a physician, called him to an emergency case, and if the chiropractor attempted to stop the flow of blood or to dress or cover a wound so as to limit the chances of infection, pending the arrival of a physician, the chiropractor would still be liable to fine and imprisonment and to have his license revoked. The chiropractor must staunch the flow of blood and prevent infection by punching the spine, and not otherwise.

To make a good chiropractor, you must catch him young—and ignorant. A man with a high school education or with two or more years college education is too apt to ask embarrassing questions of the chiropractic faculty and not to make an apt student. He knows too much. And so this bill does not require even a high school education, or any education at all. It requires merely that the matriculate at a chiropractic school possess a "preliminary education or experience equivalent to a high school education." And apparently it leaves the faculties of the chiropractic schools throughout the country to determine what education and what "experience" is "equivalent" to a high school education.

The bill provides the usual hocus-pocus about "three years of six months each;" also about "requiring actual attendance upon classes." How much "actual attendance" would be required, the bill does not say. Neither does it intimate whether those chiropractic schools that fix their chiropractic class "hours" at thirty minutes are to be regarded in good standing.

Applicants are to be required to attain an average of "at least sixty per cent," an extremely low passing mark. When it is realized how low the mark may be in individual branches in the examination and yet permit the applicant to make an average of sixty per cent on the entire examination, it is apparent how ignorant the licentiate may be. And as if to avoid any possibilty of the legislature or any other agency ever checking up the work of the board, no provision is made to preserve the questions and answers for any length of time.

V.

A not infrequent claim of the chiropractors is that they do not treat disease. The pending bill, however, is a frank recognition of the fact that they do so, for Section 10 provides for the revocation of a license if the licentiate "practices anything other than chiropractic to cure or relieve disease or to remove the cause thereof," or if he "holds himself out to cure incurable diseases."

VI.

The financial arrangements within this bill are interesting. Apparently the intent is to hold out to the legislators the prospect of large sums for the public school funds as a result of the enactment

of the bill. The license fees to be charged the chiropractors are high and numerous, and Section 10 provides that—

"If at the close of any fiscal year there remains in the hands of the state treasurer $1,000 over and above all indebtedness of the board the same shall be turned over to the public school fund."

The only hope for any considerable sum to be derived for the public school fund from the enactment of this bill lies in the possibility of Michigan becoming the haven of the chiropractors of the country through the rights the bill proposes to vest in the National Board of Chiropractic Examiners. That board need but issue licenses right and left to chiropractors of all kinds, who could thereupon swarm to Michigan, and the revenue might be considerable. Still, however, if the legislature is so much in need of money as to resort to methods of that kind, it would do better to license chiropractors without examination, or with a merely nominal examination, and then rake into the treasury of the state the money that under the proposed scheme will go into the treasury of the National Board of Chiropractic Examiners.

VII.

Section 8, that proposes to issue licenses without examination to "straight" chiropractors who have been continuously engaged in the practice of chiropractic in this state for two years prior to the passage of this act," is nothing more nor less than surrender by the state to a rebellious group of persons who have been bootlegging chiropractic to the people of Michigan for two years or more in defiance to the power and authority of the state government. If the legislature surrenders to such a rebellious chiropractic group, the result will be in effect an invitation to similar groups of natureopaths, napropaths, poropaths and other organized bands to resort to a similar defiance of the state law in order to obtain their ends.

VIII.

Finally, there is no reason whatsoever for the enactment of any such law as is here proposed; for any chiropractor "straight" or "mixed," who has a reasonable basic examination can obtain a license as a drugless healer, under the laws of Michigan as they now stand. Any licensed physician and any licensed drugless healer can today give to the people of Michigan any advantage to be derived from spine punching as taught by the chiropractic school, if there were any benefit.

This bill cannot be justified even on the allegation that there is a special technique of spine punching, for it makes no provisions for excluding from the practice spine punchers, chiropractic or otherwise. All it does is to legalize the spine punching by the group of defiant spine punchers who have heretofore been plying their trade in Michigan—and it does not undertake to determine their qualifications as spine punchers. It grants to state and territorial boards and cliques of nonresident chiropractors the right to determine who shall and who shall not practice spine punching in Michigan but it does not lay down any rule whereby they are to determine such qualifications nor any method whereby the work of such boards and cliques can be checked up.

IX.

On the whole this bill seems to me to be a shrewd effort to procure a pardon and reward for a group of Michigan law breakers and to provide an easy method whereby a certain class of chiropractor factories can unload their output on the state of Michigan, by the "National Board of Chiropractic Examiners" route.

COUNTY SECRETARIES CONFERENCE

Date: April 22nd, 1925.
Place: Grand Rapids; Rowe Hotel.
Hour: 10:30 a. m.
For: All County Society Secretaries.

The above tabulation headlines the details of this important conference.

Its object is to afford an opportunity for a meeting of all our County Secretaries to discuss our organizational problems, to formulate plans of activity and to institute measures that will enhance the benefits of membership.

Our Conference last year demonstrated its value. We anticipate greater benefits this year.

We urge every Secretary to attend. We urge that every County Society will send its Secretary to this Conference and pay his expenses.

The following is the program:

* * * *

SECRETARIES' CONFERENCE
April 22, 1925
Hotel Rowe
Grand Rapids, Mich.

10:30—Opening Remarks. C. C. Clancy, M. D., President; J. B. Jackson, M. D., Chairman of the Council.

11:00—The Spirit of Organized Effort. F. C. Warnshuis, M. D., Secretary-Editor.

11:20—What are Desirable Features of the Scientific Programs? G. J. Curry, M. D., Flint.

11:35—Discussion—15 minutes. (Each discussant limited to three minutes).

12:00—Luncheon.

1:30—Aids in Secretarial Work. H. L. French, M. D., Lansing.

1:45—Discussion—15 minutes. (Each discussant limited to five minutes).

2:00—Community Responsibility and Work of the County Society. Don F. Kudner, M. D., Jackson.

2:15—Discussion—15 minutes. (Each discussant limited to five minutes).

2:30—Co-operation with County Societies. Harvey George Smith, Executive Secretary.

2:50—Round Table.

Points of Discussion

Membership, New and Delinquent.
Committee Work, Methods.
Attendance, Methods of Securing.
Publicity.
Automobile Emblems.
Reports for the Journal.
Special Society News and Information.

Evening—Regular meeting of the Kent County Medical Society at 8:00 p. m.

Editorial Comments

The Annual Meeting of the American Medical Association will be held this year in Atlantic City during the last week in May. For a meeting place few cities can equal Atlantic City. For a national meeting the A. M. A. makes attendance worth while, of personal profit and affords excellent opportunity for restful diversion. Special railroad rates of one and a third fare will be obtainable.

Hotel accommodations are ideal and can be secured at very reasonable rates. Plan to attend. Secure your hotel reservations now. It will profit you handsomely if you participate in this national meeting.

The Annual Meeting of all our County Secretaries will be held in Grand Rapids on April 22nd. Your local Secretary is the most important officer in your County Society. He expends much time and effort in your behalf. Your County Society owes it to your Secretary to instruct him to attend this Conference and to defray his expenses. Please see that this action is taken at your next County Meeting.

We boast of our civilization and the while cold figures tell us that there are twenty million illiterates who can neither read or write and of whom but half can write their name. One out of every 100 citizens is either insane, epileptic or reveals a degenerative stigmata. Crime cost this nation during 1924 ten billion dollars. We spent more for cosmetics than we did for sanitation. More was spent for hair nets than for social education in spite of the hair bobbing fad. These are just a few facts that furnish reasons for reflective thought.

Our congratulations to Ohio and its state legislature. This law making body declined to create a Chiropractor Board with special privileges to the members of that cult. Ohio also enacted a law making it compulsory for both parties of a marriage contract to present certificates attesting to their being free from any venerial infections. This latter is splendid constructive legislation. Other states may well imitate and institute eugenic laws. The sooner they do, the sooner will our state institutions for defectives diminish. It is a movement of far greater importance than feeding of infants, control of tuberculosis, cancer or dental conservation. We trust the truth will become evident to our law makers.

This issue contains some three pages of additional and new advertising. These contracts have been secured for varying periods and are dependent for renewal upon the results obtained by these advertisers. The revenue from these contracts make your Journal possible and enable us to enhance its value and scope. They also enable your Publication Committee to send you the Journal for the price that is being assessed against your dues. It must therefore be percievable that each member has an obligation and a duty to perform and that is to patronize these advertisers. Give them your preference and place your orders with these absolutely reliable firms. Many of them will give you exceptional service and accord you every courtesy. All of them are willing to serve you and will do their part to make you satisfied with every transaction. We plead with you to support your Journal by dealing with these patrons who solicit your business. Will you not demonstrate that you appreciate their business and send to them your orders?

One of those confounded errors that are without cause, appeared in our March issue. The splendid article on Insulin by Dr. William M. Le Fevre was credited to Dr. George M. Le Fevre. "Dr. William" is a son of Dr. George L. Le Fevre and bids well to "out-shine" his dad and is deserving credit as author of the article referred to. We regret that the error occurred and that "Dad" was given credit for his son's literary labor.

Twenty years ago tuberculosis was the leading cause of death. Today tuberculosis ranks fifth. Organic heart diseases now rank first with a mortality of 150 per 100,000. Out of some million annual deaths from all causes, almost 140,000 or 13 per cent are due to heart disease. For every heart disease death there are 17 living cases of heart disease. These are problems meriting thought and study as well as the formulation of a movement that will reduce this annual mortality that is in a measure amendable to marked reduction.

An increase in the number of cases of venereal disease reported in the United States in the year which ended June 30, 1924, over the number reported in the previous corresponding year is disclosed by the figures recently made public in the annual report of the Division of Venereal Diseases of the United States Public Health Service. The report indicates that the increase in the fiscal year 1924 amounts to 27,382 cases, or 7.2 per cent. A total of 363,063 cases of venereal disease were reported to the various state boards of health from all sources. This total was composed of 193,844 cases of syphilis, 160,790 cases of gonorrhea, and 8,429 cases of chancroid.

"The fact that the 1924 statistics show an increase over those for 1923 does not necessarily mean that venereal disease was any more prevalent in the United States last year than in the year before," explains the Chief of the Division of Venereal Diseases.

"The greater number of cases now on record at the State boards of health," he continues, "may well be accounted for by the increased efficiency in detecting these maladies and by more conscientious reporting of cases on the part of private physicians. For a long time the danger from syphilis and gonorrhea was greatly enhanced by the fact that these diseases were carefully covered and concealed and were often kept secret even from physicians who might have brought about a cure. Fortunately people are now learning that they must go to a reputable physician or clinic if they wish to be cured, and laws requiring that these cases be reported to the State boards of health are making it possible to obtain some idea as to the prevalence of syphilis and gonorrhea in the country, although there are many cases that still escape discovery."

During the fiscal year just passed, 504 public clinics reported to the State boards. These clinics treated 118,023 new cases of venereal disease made up of 65,046 cases of syphilis, 49,029 cases of gonorrhea, and 3,949 cases of chancroid. A total of 2,147,087 treatments were given. The fact that these clinics made 302,152 Wassermann tests for detecting syphilis and 203,008 examinations to discover gonorrhea would seem to indicate that people are beginning to realize the terrible consequences that follow in the wake of these diseases and are willing to take advantage of reputable opportunities for cure.

Reports from 37 correctional and penal institutions were received by the Division. The efforts of those in charge of these institutions have resulted in a large increase in the number of venereally diseased persons discovered and treated. New patients to the number of 7,045 were admitted to treatment in 1924, and increase of 44 per cent over the year 1923.

The menace of venereal disease is one that is being fought by the United States Public Health Service and the various State boards of health acting in co-operation with municipal health officers. These governmental agencies are trying to impress upon parents, teachers, young people and others the need of wholesome sex education, of

prompt medical attention and the necessity for the passage of modern health ordinances and legislation. Among the social institutions which can aid in the fulfillment of this program are the home, the school, the church and the press.

Among Our Letters

NOTE.—*This department is the open forum of our members. Your communications and discussions are welcomed. Anonymous communications cannot be accepted, though at times names may be omitted by the Editor. Personalities will not be printed and responsibility for opinions is not assumed. We invite your interest in this department. Address: The Editor, Journal, Michigan State Medical Society, Powers Theatre Bldg., Grand Rapids, Mich.*

Editor of the Journal:

My attention has been called to an article entitled, "A Diet for Peptic Ulcer," by Dr. A. Altshuler, Detroit, appearing in your January, 1925, number.

In emphasizing the "Jarotzky Diet," Dr. Altshuler states that "the recent paper by Coleman describing a new diet for peptic ulcer is noteworthy, because it is the first time in this country that an attempt has been made to adapt such a diet to the laws of physiology." This is a most surprising statement, as can be proven if reference is made to my papers (Amer. J. Med. Sc. Apr. 1917, p. 547 and Amer. J. Med. Sc Dec. 1923, p. 781).

These papers not only called attention to the need for a total reconstruction of our dietetic regimen to fit established clinical, physiological and pathologic facts, but the first paper appeared a year before Jarotsky published his first paper and two years before his paper which furnishes the chief matter in Dr. Altshuler's contribution. Of course, in neglecting to give an American clinician credit for work done, Dr. Altshuler is only following the custom common in this country, i. e. —observations "made in Europe" are to be accepted and those of home talent neglected. "The hills afar off are always greenest!"

In the fifth paragraph of his paper, Dr. Altshuler mentions my contribution of April, 1917 to the American Journal of the Medical Sciences, but his comments indicate either that he has not read it (and subsequent papers) or that he has grossly misread it. He states "The diets of Lenhartz, Sippy and Smithies, which allow milk, egg, bread, meat and fruit ignore the fundamental work of Pawlaw (written "Pavlov") which showed that the secretions of the stomach are excited (written "exicted") differently by various foods, and the frequent feedings demanded by the Sippy and the Smithies methods keep the stomach in a continuous state of peristaltic unrest. Thus the modern Russian school demands that in the treatment of peptic ulcer, first, gastric secretion be kept in abeyance (written "obeyance"), and second, gastric motility be reduced to a minimum, while at the same time the nutrition of the patient be kept at a high level.

Anyone who is familiar with my writings and clinical procedures will recognize that Dr. Altshuler has gained an entirely wrong impression of the regimen which I have carried out for more than 12 years. All my papers have persistently called attention to the unphysiologic premises of feeding milk, eggs and cream and all my dietetic endeavors have been directed to keeping the stomach food free for the maximum time. "In school and out," I have preached against alkalies, stomach tubings and egg and milk protein feedings. I have shown the physiologic inconsistencies of their exhibition and, I believe, was first to emphasize the importance of "Physiologic Rest" as a method of peptic ulcer management. The "demands of the modern Russian school" were anticipated some five years in my clinic, as those who have visited it well know. Further, my whole attitude in the matter was made plain at the Annual Grand Rapids session of the Michigan State Medical Society in 1923 in my address.

The inconsistencies of "the modern Russian school" and Dr. Altshuler are shown by his summary of the "Jarotsky Diet": "the feeding of egg white and butter exclusively for 10 to 14 days," (in America we are to assume that egg excites gastric secretion; in Russia, it is an "astringent", "fiixes free acid"—and, of course, excites no gastric peristalsis!); "butter is given to supply calories"; "upon reaching the duodenum" (without gastric peristaltic activity, I assume), "it depresses the acidity of the chyme and closes the pylorus" and "while still in the stomach, it stimulates the opening of the pylorus" (thus initiating and maintaining gastric peristalsis in spite of the wishes of "the modern Russian school"!) "and causes the regurgitation of duodenal contents which aids in the fixation of acid." (I am not familiar with any literature, Russian or otherwise, where proof of these statements has been submitted).

So far as Jarotsky has written and so far as Dr. Altshuler has cited his own experience (8 cases of gastric ulcer) no evidence is at hand that the Jarotsky, Coleman or Altshuler regimens stand on so sound a scientific basis and on that, consistency, as does the "Physiologic Rest" method which I have employed in more than 500 ulcer cases, during the past twelve years. Furthermore, the dates of my first publication, (1917, the paper being read before the American Gastroenterological Association in May, 1916), definitely prove that Dr. Altshuler's statement that "Coleman's paper is the first time in this country that an attempt has been made to adopt such a diet to the laws of Physiology" will not bear scrutiny.

Yours truly,
Frank Smithies, M. D.
Professor of Medicine, School of Medicine, University of Illinois.

FROM AN EX-PRESIDENT

Enclosed find petition that was handed to me two days ago. The Society and Journal are certainly making strides that must be pleasing to those interested in the welfare of the profession.

With kindest regards,
Yours respectfully,
W. J. KAY.

We appreciate these comments from one who has served our Society so well and faithfully.

State News Notes

COLLECTIONS

Physicians' Bills and Hospital Accounts collected anywhere in Michigan. H. C. VanAken, Lawyer, 309 Post Building, Battle Creek, Michigan. Reference any Bank in Battle Creek.

NURSES' private home, invites convalescents and invalids; best of care, fine location. R. Rs. N. Y. C. and Interurban; best of references given. For particulars write Bessie Bileth, 566 Ely Street, Allegan, Mich.

WANTED: Salaried Appointments for Class A Physicians in all branches of the Medical Profession. Let us put you in touch with the best man for your opening. Our nation-wide connections enable us to give superior service. Aznoe's National Physicians' Exchange, 30 North Michigan, Chicago. Established 1896. Member The Chicago Association of Commerce.

A PRACTICAL course in Standardized Physiotherapy, under auspices of Biophysical Research Dept. of Victor X-Ray Corporation, is now available to physicians. Offers a highly practical knowledge of all the fundamental principles that go to make up the standards of modern scientific physiotherapeutic work. Course requires one week's time. For further information apply to J. F. Wainwright, Registrar, 236 So. Robey St., Chicago, Ill.

The fifty-second annual meeting of the Northern Tri-State Medical Association will be held in Battle Creek, Mich., Tuesday, April 14th, 1925.

The Sturgis Memorial Hospital was dedicated on February 18th, and is now open for the reception of patients.

Dr. J. T. Case, Battle Creek, returned March 6th from a three months trip through South America.

Dr. Eugene B. Pierce, Superintendent of the Michigan State Sanatorium, located at Howell, Michigan, resigned his position on February 21st. It was accepted to take place on April 7th.

Dr. Pierce has been in charge of the Michigan State Sanatorium since August, 1909. At that time the institution was in its infancy, accommodating only 46 patients. Now it is caring for 166 adults and 72 children. It is the only state sanatorium in Michigan.

After spending some time in post graduate study, Dr. Pierce expects to take up private practice in Ann Arbor.

The American Board of Otolaryngology will hold its first examination during the meeting of the American Medical Association in Atlantic City, May 25th to 28th.

According to the rules of the Board, applicants are divided into three classes.

Class 1—Those who have practiced Otolaryngology ten years and more.

Class 2—Those who have practiced Otolaryngology five years and less than ten years.

Class 3—Those who have practiced Otolaryngology less than five years.

The type of examination is different for each class.

The Secretary, Dr. H. W. Loeb, announces that thus far over three hundred applications have been made.

Our Society Business and Activities

HARVEY GEORGE SMITH

EXECUTIVE SECRETARY

NOTE: This Department will each month contain a discussion and report of our Society work and planned activities. Your interest and correspondence as to your problems is solicited.

ONE OF THREE THOUSAND

Are you, or are you not to be, one of the 3,000 members of the County and State Medical Societies of Michigan? The County Secretaries are reporting renewed membership every day to the state office, but at this time there yet remain a large number of unpaid memberships. Only a few new memberships have been reported. There are 4,600 physicians in Michigan. With the close of 1924 there were 2,800 members. For 1925 shall there be more or less members? If less, the indication will be that the science of medicine is on the wane, that there is loss of interest, that it does not occupy the important position that it once did throughout the cities and communities of Michigan. And in addition this picture appears, there are more and more cultists coming into the state to practice their various arts. They are members of their profession and they pay for their membership. Where the physician pays $10 to be a member of his society, the cultist pays from three to five times this amount. Again, many physicians are members of Associations of Commerce, for which membership they pay from $15 to $25. This is a good membership and one to be advised, but in comparison, what has the physician, alone or as an organization, received that directly benefits himself or his profession? No organization, however efficient it may be, however mindful of all its classes of members, can give to the physician the service and the privileges that his own County and State Medical Society have to offer.

Membership in the County Medical Society means that the physician is a member of the State Society, he receives legal protection, he receives the Journal regularly each month of the year. He has the right to secure service of any kind within the resources of the State Society. The post-graduate conferences have organized to assist the physician directly. In the seven conferences held thus far, 532 physi-

cians have attended and have received direct benefit. The State Society is at work on plans and policies to help educate the public to a better understanding of scientific medicine, how to use science in health and in sickness. The health of the state is safeguarded, and the standards required of all those practising the treating of the sick are maintained by giving to the legislative body of the state of Michigan correct information relative to the profession of medicine and its requirements. These are some of the important activities of the State Society.

In addition, the County Society membership places the profession in the local community on a high plane of service to the public. It gives opportunity to the physicians for study and for advancement in scientific medicine. It offers the means through which, in an organized way, the profession of medicine can best serve its membership and at the same time give greatest service to the community, the city, the county and the state.

When you pay $10 to your State Society and receive all of the above enumerated privileges, are you not getting $10 worth of membership? If you do not pay—and with you, suppose a thousand others fail to do so, what about your profession? By what method would you advance the science of medicine, if not through your own organization? If you do not advance your profession, to what organization will you delegate this responsibility?

No, you cannot stop, you cannot delegate and you cannot get away from your responsibilities. There is just one thing to do, and that is to go ahead. Let nothing stop the advance of the science of medicine, but least of all, let not such retarding influences originate within the medical profession. Going ahead means paying your membership fees at the earliest possible moment to the County Secretaries and in addition, giving the strongest personal support possible in the interest of your County Medical Society, your State Society, your profession, the health of the state. We get from our society in proportion to the whole-hearted support we give, unless we wish to be an additional load to our fellow member. Look forward and not backward in your own profession! Be one of 3,000 for 1925, and more, bring in a new member and thus become one of 3,500 or 4,000.

THE HOSPITAL, THE CLINIC AND THE COMMUNITY

A hospital is an institution of service to the community in which it is located. It serves the sick and the well by administering through a trained staff the best that scientific medicine, treatment and nursing have to offer. It is an institution of applied science. The laboratory, the X-ray and all means of treating and healing are available for the use of the physician and the surgeon. It is an institution of analyses and diagnoses of the human body for the purpose of directing, building or redirecting the inherent forces into strength and health, and thus usefulness and happiness. In reality, it is a new home for those who have become ill, and at the same moment offers to the well knowledge and treatment in order that they may remain well. It is the means through which the human system is kept in tune with the universe.

Through every hospital the science of medicine makes advances. No science is stationary. It is continually setting up new goals and establishing new theories and new facts. So in medical science the hospital offers the staff the opportunity of establishing new goals. Every patient is kept under a control condition from the time he enters, up to the time he leaves the hospital. His record, recorded from day to day, and each record in study with every other, permits of detailed analysis, the setting up of new theories and new goals and the establishment of facts in the treatment of the sick. Thus progress is recorded and the science of medicine for the profession and for the community, the public is advanced.

But how little the community really knows of the hospital in its very center. In most cases it is a splendid building or has beautiful flowers in the gardens, or a beautiful lawn, and what a beautiful location. Whatever knowledge the community gains is usually through the activity of the local press. This may be correct and beneficial to the science of medicine, or it may not. For too long, hospitals have kept their lights under a bushel. The public, in its interest and enthusiasm and desires, wishes to know, and if it doesn't know, it becomes suspicious and unjustly critical. The community wants to know what is being accomplished, what service is given to the sick, what progress is being made. It wants to feel and believe all the time that the hospital is its hospital. It is the owner, and like every individual who owns something, it wishes to have the best possible under the conditions. It wants to have the hospital in each community the very best, the center and the authority of the science of medicine.

The community does not know what is the real nature of a hospital, what it does, what it accomplishes from month to month and from year to year. The staff of every hospital is in study continuously in order that the profession may be advanced and the community may be better served, but the community does not know this fact in most cases. It is the duty of the hospital, of the staff, to keep the public informed from time to time, at least once a year, of what is being accomplished, what the community is really receiving, and that the hospital is not an idle monument, but a living insti-

tution for the service of the community. No institution serving the community has a lawful and ethical right to advertise, but it must inform.

Hospitals should, through the staff, be most thorough co-operators with County Medical Societies. With understanding, co-operation and a friendly attitude, hospitals and County Medical Societies can advance the science of medicine and give to the public the information and knowledge it seeks. Give to the community the information it seeks and deserves and by so doing advance the profession and the science of medicine.

THE OWOSSO POST GRADUATE CONFERENCE

Sixty physicians of the Sixth Councillor district attended the Post-Graduate Conference at Owosso on February 26th, 1925. The Genesee County Medical Society was represented by 20 physicians.

The conference consisted in the regular scientific program for the physicians themselves and a meeting at the high school for the high school students. At this meeting Dr. Marshall of Flint talked on the profession of medicine and the need of more students in this field. W. H. Henderson, Ph.D., Director of Extension, gave to the public his very popular address, "Science and Superstition." The attendance at the high school lecture was 700, and at the public meeting, 150. The conference was one of the most successful held thus far. Success is not measured by attendance alone, but by interest and the conditions under which activities are carried out. The day of the conference, so far as weather goes, was the worst of any encountered thus far. But in spite of the biting cold and the blizzard that continued all day, the courage of the physicians was not lessened. They remained for all the program.

This is proof of the fact that the programs offered in the post-graduate conferences are of interest to the physicians, are of value in that they give definite information that each can use in his own practise. In addition to the information gained through lectures, that gained by contact in good, wholesome fellowship with fellow physicians during intermissions, at dinner and after, counts oftentimes for as much as the lecture itself. It often clears the point in question raised by the lecturers of the conference.

One of the interesting features of the Owosso conference was the publicity given by the local newspaper. The Owosso-Argus Pioneer gave front page publicity to the fact that the conference was to be held for the physicians of three counties and that special meetings were arranged for the public and the schools. During the various meetings from the beginning of the scientific program to the end of the public lecture in the evening a reporter was present to learn of the subject material and to interpret to the reading public the work of the physicians in an impartial manner. This type of publicity interests the public. It wants to know that the physicians are an active and studious part of every community and are always ready to give their best. County Medical Societies can take lessons from the Shiawassee County Medical Society in developing with the newspapers fair and just publicity for the science of medicine. A word of caution may be stated here: True publicity for the medical profession develops faith, understanding, and makes for progress, while advertising develops suspicion, commercialism and leads to retrogression. County Medical Societies at the time of post-graduate conferences, or when arranging regular and special programs, can legitimately give information to the press.

The Genesee and the Shiawassee County Medical Societies co-operated with the state society by securing publicity and bringing out a large attendance at the conference. Upon the true co-operation of the County Medical Societies depends the success in large measure of the post-graduate conferences.

The following is the program of the conference at Owosso:

1:15 p. m.—"Opening Statements," H. E. Randall, M. D., Councillor Sixth District, Presiding.

Executive Secretary Smith.

1:30—"Examination of New Patients," W. H. Marshall, M. D., Flint, Mich.

2:00—"Fundamentals of Neurological Examination," C. D. Camp, M. D., Ann Arbor, Mich.

2:30—"Interpretation of Physical Examination of the Heart," M. A. Mortenson, M. D., Battle Creek, Mich.

3:00—"Fractures," F. C. Kidner, M. D., Detroit, Mich.

3:30—"Treatment of Bronchitis and Pneumonia," C. E. Chester, M. D., Detroit, Mich.

4:00—Intermission.

4:10—"Mentality Tests," C. D. Camp, M. D., Ann Arbor, Mich.

4:45—"Hypertension," M. A. Mortenson, M. D., Battle Creek, Mich.

5:10—"Orthopedic Corrections of the Feet," F. C. Kidner, M. D., Detroit, Mich.

5:40—"Diabetes," Phil Marsh, M. D., Ann Arbor, Mich.

6:30—Dinner. "American Legion," Fifteen-minute talks by Harvey George Smith and Charles T. Foo, M. D.

8:00—Public Meeting—"Science and Superstition," W. D. Henderson, Ph. D., Ann Arbor, Mich.

2:30—Afternoon talk at high school by W. H. Marshall, M. D., Flint, Mich.

Deaths

Dr. W. J. Sugnet of Gagetown, Michigan, died March 18th, after a ten day illness. Dr. Sugnet was forty-five years of age, a graduate of the University of Michigan Medical College in the class of 1905. The twenty years he practiced medicine were confined to Gagetown and the surrounding community.

WHEREAS, Through the death of Dr. Anna

Odell the Blackwell Society has lost one of its pioneer and most active members; therefore be it

RESOLVED, That this Society is sensible of its great loss in the untimely death of Dr. Odell; therefore be it

RESOLVED, That a copy of this resolution be sent to Dr. Odell's family and that it be incorporated in the minutes of the Society and a copy sent to the Journal of the Michigan State Medical Society.

Signed, F. Chadwick, M. D., Chairman,
Rhoda Farquharson, M. D.

County Society News

WAYNE COUNTY

The activities of the Wayne County Medical Society for the month of February, 1925, consisted in the main in the usual weekly meetings with programs as follows:

February 2, "Acute Otitis Media," by Howard Peirce, M. D., followed by an educational film on "How We Hear."

February 9, "Diathermy and Ultra Violet Ray Therapy," by A. J. Pacini, M. D., of Chicago.

February 16, a most interesting symposium on "Peptic Ulcer," under the supervision of Grace Hospital. The papers by titles were as follows: "Symptamatology and Diagnosis," by John Taylor Watkins, M. D., "Roentgenological Diagnosis," by Rollin H. Stevens, M. D.; "Some Phases of the Dietary and Medical Management," by C. Emerson Vreeland, M. D.; "Peptic Ulcer From the Surgical Standpoint," by Herbert W. Hewitt, M. D.

February 23, "The Significance of Blood in the Urine," by Herman L. Kretschmer, M. D., of Chicago.

The meetings were uniformly of a high calibre and presented much of scientific and practical interest.

Richard M. McKean, Secretary.

ALPENA COUNTY

The regular meeting of the Alpena County Medical Society was held March 19th at the New Alpena House. Doctors Wm. A. and Leo Secrist entertained the Society at dinner; after which the scientific meeting was held at the home of Dr. D. A. Cameron. Dr. C. M. Williams gave an interesting history of the progress in the estimation of Basil Metabolism and demonstrated an office apparatus for its estimation. Dr. Wm. McCandliss, who had practised medicine in China for five years, described Chinese medicine as lacking scientific knowledge, and any sense of responsibility to the patient. On being called to attend the sick, they never returned to see the patient; they never examined him but devoted their time to a long discussion of their theory of disease.

The Post-Graduate Medical Conference will be held at Alpena, April 2. Medical men are invited to be the guests of the local Society at luncheon and dinner on that date.

C. M. Williams, Secretary.

MUSKEGON COUNTY

A meeting of the Muskegon County Medical Society was held in the banquet room of the Occidental hotel on the evening of February 20th. After the reading of the minutes of the last meeting, the president set aside the order of business and Dr. Garber gave a very interesting talk on "These Ninety Years," reviewing the many advances made in the Arts and Sciences during the lifetime of our guest, Dr. Stoddard, in whose honor this banquet was given. He also prophesied some of the achievements of the next ninety years.

Dr. Stoddard responded to a request for a talk on "These Ninety Years" and after a few words of appreciation, gave a very interesting resume of his long and useful life.

Doctors, their wives, and guests to the number of forty-one enjoyed the evening.

After the completion of business the meeting adjourned.

P. S. Wilson, Secretary.

OAKLAND COUNTY

A meeting of the Oakland County Medical Society was held February 27th, 1925, at Taft hall, Birmingham, Mich., at which 24 members were present. Dr. John Taylor Watkins of Detroit, gave a paper on, "The Diagnosis and Treatment of Peptic Ulcer." A motion was passed to contribute $25.00 per year for four years to the Borgas Memorial fund.

The president, Dr. Colvin, appointed a membership committee to try to interest men in our county who are not members. Meeting adjourned.

Our next meeting will be held on March 20th, at which time we will be addressed by Dr. C. E. Vreeland of Detroit.

Leon F. Cobb, Secretary.

HOUGHTON COUNTY

The Houghton County Medical Society held its regular monthly meeting Tuesday, March 3rd, at the Miscowaubik Club, Calumet, Mich., with eight members present.

After reading of the minutes and the allowing of bills for the current month, the following program was indulged in: Dr. K. C. Becker of Mohawk, read a paper on "Chorio-Epithelioma," with report of case which he had seen while in hospital service in Toledo, Ohio. Dr. Becker's paper was fully discussed by those present. Dr. A. C. Roche of Calumet, next presented a case of "Congenital Absence of Both Radius," showing the X-rays of the case. A very free discussion was indulged in by those present. Dr. G. C. Stewart next presented a case of Eclampsia following delivery; discussion of this case was indulged in also.

The necessity of the early payment of dues was insisted upon and several responded.

The Society then adjourned to lunch.

G. C. Stewart, M. D., Secretary.

GOGEBIC COUNTY

The regular meeting of the Gogebic County Medical Society was held at Grand View hospital, Friday, March 13. Eight members were present. Dr. Dorpat read a paper on "Foreign Proteins As a Cause of Disease." Following a discussion on this paper, various other scientific subjects were discussed.

M. J. Lieberthal, M. D., Secretary.

NEWAYGO COUNTY

The annual meeting of the Newaygo County Medical Society was held in the dining room of the Kimbark Inn, in Fremont, Mich. The following officers were elected for the ensuing year:

President, Dr. Lambert Geerling, Fremont; Vice-President, Dr. A. C. Tompsett, Hesperia; Secretary-Treasurer, W. H. Barnum, Fremont; Delegate to M. S. M. S., H. A. Brady, Newaygo; Committee on Medical Defense, N. DeHaas, Fremont.

W. H. Barnum, Secretary.

Among the Books

A Review and Frank Appraisal of Medical Books That are Proffered to the Profession by Publishers.

ANNUAL REPRINT OF THE REPORTS OF THE THE AMERICAN MEDICAL ASSOCIATION FOR COUNCIL ON PHARMACY AND CHEMISTRY OF 1924: Cloth. Price, postpaid, $1.00. Pp. 82. Chicago. American Medical Association, 1925.

This volume contains the reports of the Council on Pharmacy and Chemistry that have been adopted and authorized for publication during 1924. Some of these reports have appeared in The Journal of the American Medical Association. Others are now published for the first time.

The annual volumes of the "Council Reports" may be looked on as the companion volumes to New and Nonofficia Remedies. Whie the atter contains the medicinal preparations that are found acceptable, the reports contain the reasons why certain products were not accepted. Thus the present volume contains reports on the following products which the Council denied admission to New and Nonofficial Remedies: Aolan; Aspatol; Atussin, Peptoproteasi, Paraganglina Vassale, Fosfoplasmina, Asmoganglina and Endo-Ovarina Tablets: Borosodine; Carsinol; Colodine and Colobromidine; Ferrasin; Glyeuthymenol; Hoyt's Gluten Flakes; Iodeol; Loeflund's Food Maltose; Mistura Creosote Comp. (Killgore's) and Tablets Cascara Comp. (Killgore's); Neo-Riodine; Nicomors; Peptone Solution for Hypodermatic Use (Armour); Pixalbol; "P-O-4"; Pollantin; Promonta; Pruritus Vaccine Treatment-Lederle (Montague Method); Restor-Vin; Some "Mixed" Vaccines of G. H. Sherman and Tersul Hiller.

The volume also contains reports on products which were included in former editions of New and Nonofficial Remedies but which will not appear in the 1925 edition because they were found ineligible for further recognition. Among these are polyvalent antipneumococcic serum, colon bacillus vaccine, gonococcus serum and gonococcus vaccine.

The volume contains a number of reports of a general nature: for instance a report on the therapeutic value of benzyl benzoate; a report on anaphylaxis produced by thromboplastic substances and a report on the therapeutic use of digitalis.

Physicians who keep fully informed in regard to the value of proprietary remedies will wish to own this book.

LOCAL ANESTHESIA SIMPLIFIED: J. J. Posuer, D. D. S., Harlem Dispensary, New York. Price $3.50. C. V. Mosby Co., St. Louis.

With fifty-five illustrations and a clear descriptive text this effort sets forth in a particular and simple manner dental anesthesia and nerve blocking in the maxillar. It will be found to be a teacher and guide that is thorough, effective and dependable. The anatomical relationships are plainly outlined.

SURGICAL PATHOLOGY: William Boyd. M. D., Professor of Pathology, University of Manitoba; Pathologist to the Winnipeg General Hospital, Winnipeg, Canada. Octavo of 837 pages with 349 illustrations and 13 colored plates. Cloth $10 net. W. B. Saunders Co., Philadelphia and London.

As Dr. W. J. Mayo says in the foreword of this text: "Pathology is a science dealing with living things and conditions." We who have looked upon pathology as a cadaveric subject dealing only with things in the dead-house or the specimen par, have great need to revise our attitudes. Dr. Boyd in this text has given us what we so long have needed—a handbook on pathology for the internist and surgeon that is practical. Modern surgery is based upon pathology as well as upon anatomy. We have ignored the pathology. This text fills the defect. It is a text that no surgeon can afford to ignore. It is a new force in his work, another assistant in the operating room. We commend it unreservedly.

OFTEN DON'T SUSPECT WE HAVE WEAK HEARTS

Persons who are the surest they have weak hearts are in many cases laboring under a delusion, while the ones who least suspect it are those whose hearts need treatment.

This is the opinion of Dr. William Duncan Reid, Boston heart specialist, who tells in the April Hygeia why heart disease heads the list in the mortality statistics.

"Many persons come to the doctor with some such list of symptoms as these—rapid heart action with pain around the heart, shortness of breath, dizziness, oppression, blue skinned hands. That sounds like a bona fide sick heart, doesn't it? Well, it isn't. The doctors call it effort syndrome, which means that due to some disturbing factor a set of symptoms appear simulating cardiac disease, although no impairment of the heart has occurred."

Then there is the other type of individual, Dr. Reid points out, who feels so well that he thinks he can impose on himself to the extent of working hard, eating heartily of rich food, taking no adequate exercise and scorning vacations. His heart may be so badly diseased that he will drop dead the next week.

The only way to know if your heart is in good condition is to have a periodic examination by your doctor and not worry, says Dr. Reid.

BEST WAY TO REMOVE SUPERFLUOUS HAIR

How can I remove superfluous hair?

That is one of the most frequent questions asked of Hygeia, popular health magazine published by the American Medical Association. In its February issue a prominent physician answers that question as follows:

There is no preparation that can be used locally to destroy superfluous hair without injjuring the skin more or less permanently. Preparations sold for removing hair remove it only temporarily and frequently cause an inflammation of the skin.

The X-ray will remove hair permanently, but it is apt to injjure the skin and is not recommended for this purpose. A safe and certain method is by the electric needle, provided the work is done by a person properly trained for that work.

Peroxid and ammonia, often recommended for removing hair, will bleach the hair but will not kill it, the magazine states.

MOST DEAFNESS PREVENTABLE

There are 80 per cent more deaf persons in the United States than there should be. The reason for this is that deafness, at least four-fifths of it, can be prevented if proper treatment is instituted at the onset of the trouble. The majority of persons become deaf in childhood and nothing is done to alleviate the trouble until they begin to complain later in life; then it is often too late to do more than arrest the condition.—Hygeia.

The Journal
OF THE
Michigan State Medical Society
ISSUED MONTHLY UNDER THE DIRECTION OF THE COUNCIL

Vol. XXIV. GRAND RAPIDS, MICH., MAY, 1925 No. 5

Original Articles

The Physiology and Pathology of the Blood in Relation to Surgery*

MAYO LECTURE IN SURGERY
(University of Michigan.)

WILLIAM J. MAYO, M. D.,
ROCHESTER, MINN.

The seventeenth century, through the achievements of William Shakespeare in the world of letters, and of William Harvey in the world of medicine, was one of the great periods in history.

In the world of medicine, the discovery of the circulation of the blood was only one of the epochal contributions made by Harvey. He was the first to apply methods of research to physiology. He introduced experimentation under controlled conditions, which made the results applicable to disease conditions in man. It is surprising, when one examines his work, after nearly three centuries, to find that his methods of experimentation were accurate and commendable. When we consider that Harvey stood alone among his contemporaries, that from his own mind came all that he accomplished, we can better appreciate his vision and courage.

Harvey not only established methods of physiologic research, but also introduced the idea that form followed function, in contradistinction to the view generally held at that time that form controlled function. In his study of the heart, for example, he pointed out that the pericardium is not merely a sac which enables the heart to act smoothly, but a protecting agent. He showed that, in times of great stress, when the musculature of the heart is stretched to the point of its physiologic endurance, the pericardium restrains its further dilation and prevents serious injury to the musculature. a point of view which has only recently been accepted.

*Mayo Lecture in Surgery, University of Michigan Medical School, Ann Arbor, December 5, 1924.

For two centuries comparatively little was added to Harvey's conception of the blood stream, but in the middle of the nineteenth century sound contributions were made to a knowledge of the blood in its relation to disease. Addison, in 1849, described a disease of the supra-renals which has been given his name, and ascribed the circulatory asthenia to failure of the suprarenals to function. In 1855, in a few short pages, he gave a lucid description of the pernicious anemia which has never been excelled.

One might pause here to pay homage to Guy's Hospital, in England, which was the laboratory responsible for so many revolutionary discoveries in medicine. Addison worked here, and Bright, in 1827 and in 1839, illuminated the various forms of nephritis here; the full significance of Bright's work has but lately been appreciated. Hodgkin, whose name is an eponym of the lymphatic and splenic dyscrasia of which we know so little, made observations in the wards of Guy's Hospital, which resulted in his description of this syndrome. Wilks, who represented the beginning of a sound clinical understanding of diseases of the central nervous system; Hilton, whose monograph on rest and pain my father considered one of the greatest contributions of his generation; and Fagg, whose work on medicine correlated so wisely clinical and pathologic data, were but a few of the eminent workers of by-gone days in Guy's.

We have thought of the blood as an organ which contains cellular elements circulating in a liquid medium called the blood plasma, but only recently have we begun to understand what a complex fluid this is. Through physical investigations with the microscope, the formed elements in the blood have been oriented and their relation to certain pathologic conditions established. These formed

elements are the white cells, the red cells, the blood platelets, and various morphologic modifications of these elements. The accepted ratio of 5,000 white cells to 5,000,000 red cells, and from 225,000 to 400,000 blood platelets to 1 c.mm. of blood, is merely a statement of averages, which at the present time we call normal. With the high-powered microscopes of today, it is possible to see particles as minute as 1/10 micron or 1/250,000 inch in diameter. Perhaps our minds have been diverted from the main consideration by the multiplicity of variations in cells which have been described by many investigators using the microscope.

In the embryo, the reticulo-endothelial and lymphoid organs take part in the formation of the blood; the liver and spleen until the fifth month are sources of the cellular elements of the blood. There are many reasons for the belief that the white cell is the primitive blood cell. The blood of invertebrates contains no hemoglobin and is therefore transparent, and yellowish or white. The amphioxus, a cordate which has been suggested to be the connecting link between the invertebrates and the vertebrates, is commonly said to be the only vertebrate with white blood. The primitive white blood cell is found in the fetus, and all the lower orders of life that have a circulating medium. Carrell, in discussing the potential immortality of living tissue which is provided with nutrition and whose waste products are removed, calls attention to the lymphocyte as a tiny, free-moving white cell which carries to fixed cells the essentials of growth, a function which is evidenced by the action of the lymphocyte in the healing of wounds. The lymphocyte not only is concerned with the healing of wounds, but is one of the chief defensive agents in infectious processes, second only in the superior phagocytic power to the large mononuclear white cell. The differential diagnosis of diseases which involve the white cell depends to a great extent on changes in the numerical relation, form, shape, and general characteristics of the white cell. Especially must the importance of the abnormal type of white cell, such as the myelocyte, be studied in the acute leukemias, and similar dyscrasias, in which the white cell count is often not so significantly increased as in the chronic leukemias. The white cell is nucleated and takes a prominent part in growth and repair.

We realize rather dimly the relation of the white blood cell to various diseases of a lymphoid character. Much of the evidence at hand is contradictory; for instance, that concerning the lymphosarcomas, and, more specifically, that concerning Hodgkin's disease, in which the earlier observers found leukopenia, but modern methods have shown that the disease is more often accompanied by a moderate elevation of the leukocyte count, from 10,000 to 12,000. In the acute infections, much valuable information is gained from a qualitative and quantitative study of the leukocyte.

In a general way, we know that the red blood cell is a descendant of the white blood cell. The blood of the vertebrates is red because it contains hemoglobin, and the hemoglobin, to each molecule of which iron contributes one atom, is carried by the red cell. Formerly it was believed that the red cells were completely renewed every seven days, but it is now known, through the work of Ashby of the Mayo Foundation, that the red cells may live for many weeks. The red cell conveys oxygen to the tissues, takes carbon dioxide from the tissues to the lungs for expiration, and in the lungs receives a fresh supply of oxygen.

It is surprising, considering the prime importance of oxygen, that the body does not have the capacity for storing oxygen or substances which will produce it under stress, especially as 47 per cent of the earth, the air, and the water, taken as a whole, is composed of oxygen. While the extremities of the body may be deprived of oxygen for several hours, with recovery, if the central nervous system, especially the medulla, is deprived of oxygen for from seven to ten minutes, death results. The processes of life are dependent on oxidation. From oxidation is derived heat, energy, and the power of growth. The red cells function, but have no nucleus and therefore no power of reproduction. There are certain evidences from analysis of the function of cells that the nucleus is largely devoted to growth, and the cytoplasm to function. In the cancer cell, the nuclear elements are extraordinarily active and large in proportion to the cytoplasm. The more predominant the nuclear elements of the cancer cell are over the cytoplasm, the more malignant the neoplasm, and when the cytoplasm does not differentiate and afford evidence of physiologic activity, the cell is highly malignant, because all of its oxidizing power is converted into growth without function, at the expense of the controlled oxidation of the normal cell. This question of oxidation in relation to disease of the blood must receive intensive investigation. In the anemias, blood transfusion clearly demonstrates the value of the carriers as a temporary aid to rehabilitation.

In the future, a most fruitful field for

study should be the varied conditions which lead to the development of the anemias. At present we recognize pernicious anemia with certainty only when it approaches a terminal stage. Is it merely the end-result of a number of processes which interfere with the normal formation of red cells?

Investigations with the ultramicroscope of the minute constituents of the blood cells are leading to new views concerning the pathology of the blood, and will eventually assist in a better correlation of conditions of the blood plasma, and of the stability and function of the cellular elements of the blood.

Rockwood, of the Mayo Foundation, has had interesting results in his research on hemolysis. Under the ultramicroscope the normal red corpuscle appears as a very bright ring of light around a dark center. As the cell hemolyzes, the bright ring fades to a dull gray rim surrounding the stroma or "ghost," but under proper conditions the reverse phenomenon of Brinkman can be produced; that is, hemoglobin may re-enter the cell. Methods of investigation along physical lines are most important, but it is not easy for us to accept a physical explanation for the so-called vital phenomena, and it is especially difficult for morbid anatomists to throw away their conceptions based on dead cells and accept the facts which living cells reveal.

The relation of the blood platelets, which are derived from the megakaryocytes of the bone marrow, to blood clotting and the purpuras, has become evident, as well as the agency of the spleen in the destruction of blood platelets, which may cause a drop from a normal count of from 225,000 to 300,000 or more to 40,000 or less, causing chronic purpura in which splenectomy has given striking curative results.

We begin to look on the spleen in a new light. As one of the reticulo-endothelial tissues it appears to act as a lymphatic filter of the cellular elements of the blood which have outlived their usefulness, and is a limited source of white blood cells. The spleen is a destroyer of worn-out red blood cells, and if it is enlarged, it may, by an increased destructive activity bring about anemia. In pernicious anemia, the spleen perhaps acts normally as an executioner of red cells of reduced value which, however, are capable of maintaining life and are the best the bone marrow can produce. These facts have not been sufficiently correlated with the secondary anemias, but we are beginning to see the destructive effects of infectious and chemical toxins on the red blood cell, causing changes in its form, its hemoglobin content, and its ability to carry oxygen to the tissues.

We can look on the vascular system as channels for transporting cellular elements in a liquid medium, the blood plasma. Until recently, our knowledge ended there, but today, through physicochemic studies, we are learning much concerning this problem. We see the blood plasma carrying nutrition to all parts of the body, effete substances, which are to be eliminated, to the emunctories, and chemical substances, spoken of as internal secretion which co-ordinate the fundamental vegetative functions, and finally, assist in returning carbon dioxide to the lungs for exhalation. Krogh has shown that the walls of the vascular capillaries contain contractile cells, derived from the nonstriated muscle, which are to a large extent self-controlled. Under the circulatory presure of the systole of the heart, the capillaries permit oxygen and molecular substances, such as the crystalloids and amino-acids, to pass by filtration, osmosis, diffusion, and other forces, through the stomas in the vessel wall to serve vital purposes; nutrition, heat, and energy. When certain toxic poisons, for example, histamin, paralyze the contractile cells, causing the stomas in the capillary wall to open more widely, larger bodies, such as the colloids of the blood plasma, pass from the capillaries into the tissues resulting in the condition known as shock.

These colloid substances are too minute to be seen with a microscope; they vary from 1/10 micron or 1/250,000 inch in diameter to 1/1,000 micron, approximately 1/25,000,000 inch in diameter. Knowledge of the colloids comes through the fact that the colloid molecules are larger than a ray of light, and that with the ultramicroscope they can be seen to reflect the ray of light. Up to 1/100 micron or 1/2,500,000 inch the ultramicroscope determines the presence of the colloid bodies, but gives no idea of their size, shape, color, or other significant details. Particles less than 1/1,000 micron in diameter lie in the molecular and atomic field, in which chemical changes take place. The study of the blood could be brought only to a certain point by the use of the microscope. The development of the ultramicroscope, which extends our methods of physical approach, has opened new and enormously fruitful fields for the investigation of colloids. Colloids concern life itself.

Sir William Bayliss has well said that the dividing line between physics and chemistry has disappeared, that only under certain physical conditions can there take place the electric exchange of electrons and protons in the atomic field.

According to Bohr, the atom is composed of a positive nucleus, or proton surrounded by a negative electron or electrons. The simplest atom is that of hydrogen, composed of one proton and one electron, the latter being in rapid motion around the proton. Henry Moseley, a

talented young Englishman who was killed in the Gallipoli campaign at the early age of twenty-eight, analyzed the atom by the refraction of the X-ray, an electromagnetic vibration only 1/100,000,000 inch in length, smaller than the atom. He demonstrated that there are ninety-two possible elements between hydrogen, the lightest, and uranium, the heaviest, and that between each two elements in the progression in atomic weight, there is approximately the weight of one atom of hydrogen; that is, an atom of oxygen has 16 protons and 16 electrons, an atom of gold 79 of each, an atom of mercury 80 of each, an atom of radium 88 protons and 88 electrons, and an atom of uranium, 92 of each. It is interesting to note that Miethe has succeeded in removing one electron from mercury, converting it into gold. As a result of Moseley's work, Rutherford Thompson, and others have been able to fill in all but four of the elements lying between hydrogen and uranium. Many elements are not stable, or contain more than the necessary number of protons or electrons, and these superfluous, easily loosened, or free, electrical units are called ions, and are responsible for the atomic changes which we speak of as chemistry.

It is in the atom and molecule that oxidation takes place and structure is altered. Crystalloids, of which glucose, derived from carbohydrates, is a good example, lie in the molecular field as do the amino-acids, which are the final results of protein metabolism. We now know that these ultimate products are formed in the liver, for, as Mann has shown by animal experimentation, if the liver is removed, sugar and urea in great part disappear from the blood.

The newer methods being applied in the study of the blood are physical. The elimination of various dyes from which much valuable information has been brought out by Rowntree and others, as Evans has shown, is largely a filtration phenomenon.

Compare the knowledge of the quantitative derangement of the function of the liver and kidney, which has come through the study of the blood with that which was obtained from the study of the excreta. One must realize that contamination, fermentation and bacterial action of excreted material did much to obscure the older field of study and to interfere with the proper understanding of the function of these organs. Compare the limited information concerning elimination of urea, yained from examination of the urine, with the splendid knowledge obtained by the present-day study of the blood urea. As a result of this newer knowledge, the uremic patient may be so well prepared that operation can frequently be performed safely in many types of cases which were formerly accompanied by a high mortality.

This discussion may seem ultrascientific and impractical, but on the contrary, it is most practical. Today, precise examinations of the blood for reactions which concern the colloids and molecular and atomic substances, have been raised to the dignity of sound methods of securing information concerning vital phenomena.

Let us take as an example, examinations of the blood in relation to the kidney. The function of the kidney may be briefly defined as the filtration of non-colloid constituents of the blood plasma through the capsule, and the resorption of threshold bodies in solution through the tubule cells. The kidney is, therefore, chiefly a filter, whose function is to eliminate from the blood certain metabolites, such as urea, chlorids, and creatinin. Urea is one of the smallest of the molecules and is not hydrated, that is, it does not change in size by absorbing water. We know that the urea molecule must be about the size of the molecule of the dye, phenolsulphonephthalein, which Rowntree has shown by intravenous injections would be eliminated from the blood through the kidneys about as urea would be eliminated. The Rowntree and Geraghty phenolsulphonophthalein test is an accurate guide to the functional capacity of the kidney to eliminate urea. Retention of chlorids in the blood, through disturbance of renal function, results in the edemas. Creatinin is another waste material excreted by the kidneys. Estimation of these substances in the blood affords the most reliable prognostic index to renal function.

Finally, the kidney eliminates excess water in order to maintain a proper physical state of fluidity, that the colloids and molecular constituents of the blood plasma may be maintained in the condition necessary to permit chemical exchanges. Eighty per cent of the body is composed of water.. Colloid bodies can be seen only by refraction with the ultramicroscope and are held in suspension in fluids, while molecular and atomic particles form true solutions, which according to Arrhenius, may undergo electrolytic dissociation into positive and negative parts which constitute the ions.

Through studies of the blood has come the remarkable improvement in results from operations on patients with reduced renal function. Such improvement could not be estimated by the old method of examining the urine. When the blood urea rises above 125, an operation carries a very serious risk. The well prepared patient may recover from operation, provided the urinary obstruction can be relieved as in certain conditions of the prostate, even when the blood urea exceeds 300. When the blood creatinin rises above 5, a serious barrier to excretion is present, and the patient is in danger; when it rises above 10, the patient will probably die, unless the barrier is removed. The per-

centage rise and fall of the blood chlorids must be watched with care, but are not so striking as in the case of urea. If there is grave retention of blood chlorids, edema may occur. In cases of high intestinal obstruction, the chlorids of the blood fall markedly. This is frequently associated with an alkalosis and its clinical manifestations.

If the renal function, in relation to elimination of urea, chlorids, and creatinin, is so reduced that the urine cannot concentrate normally, a large intake of water is necessary. That is, if the urine normally is excreted in a concentration of 1.020, and the kidneys are able to concentrate only 1.005, the patient must take extra water to insure proper elimination through the kidneys. If the renal incompetency is in the stage of cardiac insufficiency, the patient may not bear the amount of water necessary for elimination, and a secondary edema may develop from this cause. Measures must be taken to obviate this cardiorenal complication. Under intelligent management, improvement in the condition of a patient with most serious toxemia from renal insufficiency may be brought about by the use of sufficient glucose, sodium chlorid solution, administered, if necessary, intravenously. The glucose maintains heat and energy in the body, and reduces the metabolites in the blood by preventing destruction of tissues. If the blood chlorids are high, water without sodium chlorid is indicated, but as a rule they are low, and large quantities of hypertonic sodium chlorid solution are given, if urgent, intravenously.

When acute intestinal obstruction is produced experimentally in a dog, the animal usually lives not more than a few days; but, when in this condition, if he is given intravenous injections of glucose and sodium chlorid solution at intervals, he may possibly live thirty days. This experimental condition in the dog approximates high intestinal obstruction in man. In the toxemia of high intestinal obstruction, acute dilatation of the stomach is a prominent feature.

Without regard to cause, a definite treatment should be established to relieve the shock, dehydration, and vomiting, from which so many of these patients die. On examination of the blood it is found that the normal urea blood content[26] of the patient has greatly increased. The plasma chlorids, which should be from 560 to 650, are greatly reduced. The plasma carbon dioxid volume per cent normally from 56 to 65, has increased, and when above 100, tetany is likely to develop.

The indications are fulfilled by introducing by rectum, subcutaneously, or intravenously, water, glucose, and sodium chlorid. If the patient is very ill, the intravenous method is certain and speedy. A liter of water containing 1 per cent of salt and 10 per cent glucose, twice or three times a day, is so effective that patients apparently moribund often improve so greatly in a few days that an operation, if necessary, can be performed safely. The stomach must be kept empty by gastric lavage. Even in the mechanical obstructions, great improvement can be brought about by these measures. In many cases a jejunostomy, as a temporary measure, may be required in addition to evacuate the intestinal contents, accumulated owing to obstruction, and for feeding the patient later. My colleagues, Balfour and McVicar, have made practical use of these measures with great success.

Examination of the blood sugar and careful preparation for operation permit the diabetic patient, as shown by Wilder, to be operated on almost as safely as the patient without diabetes. Sugar is a threshold substance and the threshold varies greatly in height in different persons. The person with a low sugar threshold, who takes an undue quantity of glucose or glucose-producing carbohydrates, may pass sugar in the urine. This type of glycosuria is called renal diabetes and is considered of little significance. Another person with a high sugar threshold may have no sugar in the urine, but an increased blood sugar content, sometimes accompanied by a carbuncle or a succession of boils. Infection greatly decreases the sugar tolerance and the patient with mild diabetes may be the one to develop coma following an operation. The higher fatty acids cannot be properly metabolized by the diabetic patient without carbohydrates. Such patients should have plenty of sugar, at least 100 gm. each day for several days before operation, and at least 50 gm. each day after operation, sufficient insulin being used to maintain tolerance.

We associate the formation of the white cells with the reticulo-endothelial organs, the red cells with the bone marrow, the blood platelets with the megakaryocytes; we must associate the blood plasma with the liver. Until recently we have known little about the function of the liver, but now, by means of the tetrachlorphthalein test of Rowntree and Rosenthal and by certain other methods, we are able to measure the degree of derangement of hepatic function fairly accurately. That the liver is essential to life, and that it has the greatest power of regeneration, through hyperplasia, of any organ of the body, has been proved. Mann has shown that, in the dog, 70 per cent of the liver can be removed, with regeneration of the organ in fourteen weeks. The liver controls the final steps in the conversion of the carbohydrates into the sugar necessary for the heat and energy of the body; it converts the amino-acids into substances suitable for utilization by the body, and stores fats in a form usable by the body.

With regard to the formation of the bile in the liver, while Whipple and Mann have shown that bile pigments are not all produced in the liver, they have proved experimentally that the presence of bile in the intestine, which so often has been considered purely an excretion, is necessary to life. There is clinical proof that bile is essential to life, and that the passage of all the bile to the surface of the body eventuates in death. The surgical mortality in patients with jaundice who have been properly prepared has been reduced from above 10 per cent to less than 3 per cent, as shown by Walters. Intravenous restoration of the calcium chlorid exhausted by combination of the blood calcium with the bile pigments and salts rehabilitates the patient.

The liver acts on oxygen-poor blood. Eighty per cent of the blood in the portal circulation comes from the gastro-intestinal tract, and this is the source of supply of the nutritive material in the blood plasma. The remaining 20 per cent of the blood in the portal circulation comes through the splenic portion of the portal vein. The spleen filters out various elements from the general circulation, especially degenerated red cells, or those of low value, which it sends to the liver for metabolic action.

And now we find that the lungs have a glandular function. Roger, a French experimenter, in a few concise pages, with a single illustration, suggests that metabolism of much of the fat is accomplished in the lungs. The fat is carried from the intestinal tract through the thoracic duct to the left subclavian vein and finally deposited in the arterial capillaries of the lung, into which it finally disappears. He demonstrates that the blood from the right side of the heart contains a much larger amount of fat derivatives than the left. The experiment leads us to believe that oxygen is necessary for the conversion of fat, and that the conversion of fat into a form suitable for bodily use is not primarily a function of the liver.

The surgeon is vitally interested in the elucidation of these problems relating to the circulatory system. We speak of the four vital organs: the heart, the lungs, the kidneys and the brain. We study deaths following surgical operations, to find that the largest number are charged to pulmonary complications, and the next largest to the kidneys, while only a small number can be attributed to the central nervous system and the heart. Yet when we study the organ which has been charged with the death, we find very often that it was not primarily responsible, but merely the executioner.

We begin to see the liver as one of the great vital organs; and to realize that through its formation of the material which the blood carries to the tissues, the liver is acting constantly as a medium not only of physiologic activity, but also of possible pathologic exploitation. We are becoming aware that many of the deaths which we have so confidently charged to one of the four so-called vital organs have a deeper significance. From now on the blood stream will be a most fruitful source of investigation of the vital phenomena. The need for the future in the elucidation of the problems presented by the blood is not only fine analysis of morphologic conditions and of physicochemic factors, but also the ability to see the relation of the function of the blood to the function of the whole body without becoming lost in the multiplication of detail; this will require a man of vision like Adam Smith, who laid down principles in political economy which have endured.

So much for the studies of the blood connected with metabolism. What of foreign substances which have gained entrance to the blood stream? In this connection, a fifth function of the liver which must not be forgotten is that of the detoxication of poisons, such as chloroform, phosphorus, and arsenic, and the destruction of micro-organisms brought to it from the portal circulation. By examination of the blood for bacteria, severe types of infection can often be demonstrated, especially in cases of acute bacterial endocarditis. The presence of bacteria in the blood, however, does not always foretell the death of the patient, because the resistance of the tissues is an important factor. The use of mercurochrome by Young and Piper to kill bacteria circulating in the blood stream, opens a new and most promising field of therapeutics. And Abel, through his experimentation with dialyzation of the blood, has shown the possibility of removing various toxic substances from the blood by passing the blood stream outside the body through mechanical filters for cleansing and back into the circulation.

It is not my purpose here to discuss this subject in detail, but simply to call attention to the fact that our best means of studying many disease conditions is through the contents of the blood stream. By studying the blood, we shall steadily come closer to the origin of many disorders, and eventually, by earlier diagnosis, shall be able to remove from the blood stream the causative deleterious agents, and to restore the affected organs to a higher state of efficiency.

I have been privileged to see my colleagues, the internists and the laboratory workers, evolve methods of precision for examining the blood, and successfully apply the results to the rehabilitation of the patient whose condition formerly would have

precluded operation. This work has made possible one of the most striking advances in modern surgery.

HYPERTENSION

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This afternoon I am in the realm of controversy, and if I do tread where some have been hesitant, yet I shall try to find a precarious pathway without the fear that is oft attributed to a somewhat higher species than mere man.

I purpose invading the almost-dark continent of hypertension.

In the first place I base my discourse on the assertion that hypertension in itself is not a disease entity, but a manifestation of change which occurs with various disturbances of the whole cardiovascular apparatus. In any event it is not necessarily due to nephritis alone.

What might be considered high blood pressure in a man of sedentary habits, a man over 50, does not necessarily call for the S. O. S. signal in a strong, masculine, active person of the same age. The term hypertension is relative, and it is wise to keep this fact in mind.

We do not absolutely know today the cause of high blood pressure. Where there is high blood pressure, not obviously the manifestation of or secondary to any demonstrable cause, and I have the high blood pressure or secondary hypertension that develops in chronic or acute nephritis in mind when I say this, the condition is known as "essential vascular hypertension." It is a definite clinical entity. Sir Clifford Allbutt calls it "hyperpiesia." Like that authority, I decline to advance specific reasons for the immediate or ultimate cause.

It may be the result of infection, focal or general. Disturbance in the glands of internal secretion may or may not have bearing on it; it is often found at or about the period of menopause, and ovarian activity may provide the clue in many cases. Increased thyroid activity has been suggested, but though hyperthyroidism often causes hypertension, yet a patient in this group seldom shows increased metabolism as would be the case in increased thyroid activity.

Allbutt says: "The immediate cause is increased friction which must depend either on a narrowing of the arterial bed, or on an increase of viscosity; or, of course, upon a combination of these factors." Evidently Sir Clifford tempers his explanation with more than a modicum of the well known angelic apprehension!

Vascular lesion, some form of arteriosclerosis or capillary fibrosis, have been advanced as causation, but no sign of arteriosclerosis can be demonstrated in the early stages; the objective vascular lesions come later, and rather seem to be the result of long continued high pressure. Autopsies have revealed thickening of small arteries everywhere, but whether this was the cause or the result of long continued hypertension just cannot definitely be said.

Then there is the view, and it is a prevalent one, that nervous disturbances cause it. Possibly this deserves as much consideration as any opined cause. We do know that nervous influences raise the blood pressure, and that many patients with essential vascular hypertension are extremely sensitive to psychic disturbance, nor can we deny that it is the nervous, high-tension, incessant, against-time and-penalty, sort of work and life that induces premature old age, arteriosclerosis and its various effects, of which hypertension is the chiefest.

My view is that many factors probably play their part in causation. There may be one sole cause, or at least one of sevevral causes, but frankly, I have yet to see it segregated, identified and held up to the light of day and reason.

The majority of people with hypertension first show it in middle adult life, and up to about the age of 50. It is to be observed developing in early and late life, but not commonly so.

In order to understand the significance of hypertension, a knowledge of the physiology of the cardiovascular apparatus is necessary, and in particular a knowledge of those factors which determine the level of the blood pressure and its variations. Blood pressure is determined by the systolic output and the rate of the heart. During systole there is a sudden rise in blood pressure—the systolic blood pressure. During diastole no blood enters the aorta, but flows to the periphery and from the arterioles into the venous system. The pressure within the vessels during this process is known as the diastolic pressure. Systolic pressure has to be greater than diastolic pressure in order to open the valves and flood the aorta, and both pressures must necessarily be recorded in order to study circulation as a whole. The systolic pressure represents the maximum force of the heart and fluctuates more than does the diastolic pressure. The diastolic pressure measures the peripheral resistance and when low points to aortic insufficiency. When the two pressures approach, heart failure is in the offing.

It must also be understood that even under normal conditions the blood pressure is constantly undergoing alterations of level, and the heart rate, too, is variable, this to answer the needs of the body. These are merely natural physiological adaptations of the circulatory system. In making blood pressure estimations, the residual pressure is the final and accepted estimation, and it is the lower and more representative of the true arterial pressure.

Still, diastolic pressure is probably of equal,

if not more value in the whole pressure aspect. Hypertrophy eventually appears if persistent high diastolic pressure continues to burden the heart, then come thickening arteries, diseased tissue, and the perfect picture of pathologic hypertension. Blood pressure determinations are not to be made in the spirit of routine by any means. They are, moreover, by no means the *sine qua non* in diagnosis or prognosis.

The difference between the systolic and diastolic pressures is the pulse pressure, and normally the two pressures bear a certain relationship to one another. The pulse pressure expresses this relationship. For practical purposes we may accept a systolic pressure of 135 for men, and 128 for women, as the upper limit of normal, while the diastolic pressure, 90 may be taken as the maximum for normal adults. In those over 55 years of age, 140 systolic, may be considered the upper normal limit.

Granted a given case wherein a patient presents evidence of high blood pressure, we are faced with the following contingencies: we have to know whether it is the systolic or diastolic pressures, or both, that are abnormal; we must ascertain whether this elevation is temporary or permanent; we must set about to appraise the heart and arteries.

In aortic insufficiency, patients with exophthalmic goitre, and even after strenuous exercise, the systolic pressure is increased without a corresponding rise in the diastolic pressure. Bradycardia frequently presents a similar picture, as does heart block with no valvular lesion, and these pressures constitute typical systolic hypertension.

Then there is transient hypertension such as is observed in certain forms of angina pectoris. The pressure, both systolic and diastolic, is paroxysmal and in the intervals between attacks ordinarily reverts to normal. Acute nephritis shows similar pressures.

By far the largest group of patients with high blood pressure are those who may be classed under the category of essential hypertension that is persistent. You see the obese patient with no cardiac enlargement or renal disturbance. You see him for five or even twenty years without great change except a steady tendency of the pressure to rise to higher levels. Hypertrophy and dilatation of the heart, and sometimes mitral insufficiency, at last develops, and there usually is an accompaniment of headache, vertigo, shortness of breath, and sometimes slight swelling of the feet. Pressure readings are to be seen around 200 systolic and 105 diastolic. Typically well developed hypertension.

This picture is a common one; all too common, I venture to say, considering our scanty conception of significance, cause, and ultimate consequences. However, the issue must be faced; ours not to reason why, but to do as much as we can with the limited armamentarium at our disposal. Having discovered the symptoms, we must set about discovering what is back of it.

To restore the old equilibrium of pressures by treatment is entirely out of the question. The first thing to do is to learn as definitely as possible the stage at which the patient has arrived, and this is not a matter of one or two or three examinations. Rather, is it a continuous process of observation and intelligent interpretation of the patient's own experiences. You have all observed the patient in this condition. He has come to know there is something amiss with his blood pressure, and that his heart is not to be depended on as of old. He fears apoplexy; that he will die suddenly. His every action and effort is postulated on this contingency. He often tends to be hypochondriacal. Truly a sad condition. Such a patient needs wise handling and that always in a spirit of optimism.

The unfortunate fact of treatment in most cases of hypertension is that the prescribed regime is too often one of compromise. You see the man of many business enterprises, who carries a double load—his business cares and the increasingly dangerous high blood pressure. To turn his back on his affairs and definitely resign himself to irksome management of diet and habits to ameliorate the physical condition, is more often than not out of the question. Active men of affairs are seldom willing to pay the price where health is concerned. In other cases economic conditions may debar employment of the full and necessary course of treatment.

Diet is the foundation stone of all treatment in hypertension, be the stage early or late. The heart is always a trouble spot, yet the main duty is not so much to spur and stimulate it, but to endeavor to relieve it of its heavy burden. In most cases a reduction in the intake of food brings a lessening in pressure. Osler advised confinement to bed for a couple of months during severer reduction of the feeding, and invariably reported a moderating pressure. Alcohol is considered a strong contributory cause of high blood pressure, as is tobacco. Tea and coffee are known to be injurious in excessive amounts. It is all too easy to advise cutting them all out, but practical experience tells us that the middle course of moderation is apt to be most often followed.

There is the naturally abstemious patient, who, because of his very virtue, does not promise to give much response to dietary management. Yet, poor eaters have been known to be bad metabolizers, and in their case restriction of food intake often suffices for cure. Many of these patients are of sedentary habits with sluggish excretory functions, and these peculi-

arities are not unfavorable to the successful demonstration of curtailed dietary.

The authorities are at variance on the subject of diet. Brault advises against vegetables, while Huchard is just as strong an opponent of the meat ration. Allbutt adheres to the middle course, as indeed he consistently does in his whole discussion of hypertension. A mixed diet restricted rigidly as to protein content, and otherwise restricted to meet circumstances, seems to have served his purpose well. He expresses himself as disappointed with narrow dietaries. I believe his compromise to be thoroughly sound practice, while in addition I have found that to spend one day a week in bed is a valuable adjunct to any circumscribed dietary regime.

Fruits can be given without misgivings; highly seasoned foodstuffs are best avoided. In Europe the so-called Spa treatments have been advocated for many years and not without result, yet no special treatment of short duration can take the place of a systematic, well-thought-out, and rigorously carried out continuous regime.

Exercise must be advised with judgment. You are liable to start a train of untoward circumstances if you suddenly initiate unfamiliar and unexpected muscular exertion in a patient whose life has heretofore been sedentary and quiet. How about golf, you ask? Fine! It can be taken up easily and leisurely at first, and energy added as increased training or inclination allows. Walter Camp claims that the royal and ancient game is particularly adapted for the not too active and otherwise easy going man over 40. I have yet to hear of a sudden death on any golf course.

We must now introduce into our discussion, hypertension and its connection with kidney trouble. Up to now we have been reviewing certain conditions of high blood pressure in which kidney lesions have little clinical importance. In chronic nephritis blood pressure is almost always increased, and the most modern view of hypertension associated with this condition is that the disease is one of the whole cardio-vascular-renal system, rather than a renal disorder alone.

Hypertension, hypertrophy of the heart, and sclerosis of the arteries of the kidneys, is a most frequent coincidence that as yet baffles satisfactory explanation. Does the sclerosis cause the rise in pressure? It hardly seems possible in view of our often finding hypertension with no kidney lesion. Still it cannot be proved that the hypertension is primary. The diseased kidneys may give off some poison which is absorbed into the general circulation and there, acting on the musculature of the arterioles, cause tonic contraction, with resultant increase of work on the part of the heart thus forced to drive the blood through narrowed channels. All this notwithstanding, gentlemen, the whole question resolves itself back to my basal assertion that hypertension in its widest meaning is but a manifestation of change coincident with disturbance of the general cardiovascular system, and that for reasons as yet unknown. The high blood pressure accompanying chronic nephritis cannot be explained otherwise.

It has been my recent privilege and pleasure to delve into the history of what was first called some 40 or more years ago "high arterial tension," and I was met with a veritable parade of assertions, denials, and constant shifting of opinion. Traube, Johnson, Mahomed, Huchard, the renowned Osler himself, down to Krehl and Riesman, in turn argued their beliefs and non-beliefs as to this condition being essentially one belonging to disease of the kidneys alone. An interesting review withal, but not over-prolific of definite decision.

Two distinct pictures feature chronic nephritis, depending on the presence or absence of edema. High blood pressure is invariably an accompaniment of both conditions. In chronic nephritis with edema, moderate increases in pressure are often to be noted, while the arteries as a rule do not show physical signs of change. Demonstrable arteriosclerosis is the exception rather than the rule, and hypertrophy of the heart does not usually develop until the late stages when high blood pressure is then pronounced.

Without edema cardiovascular changes are almost the rule, and high blood pressure a constant feature—as high as 250 or more is often encountered with well marked arteriosclerosis.

During pregnancy constant determinations of blood pressures should be made, particularly towards the end. A temporary rise due to constipation while in this condition is quite common, and if unaccompanied by other symptoms, is harmless. But where there is high blood pressure, and that on a continuously ascending scale, hemorrhagic lesions in the placenta are often forecast. With or without albuminura, toxemia is indicated.

In all infectious diseases the blood pressure inclines to be subnormal. This is true in typhoid fever, the systolic pressure falling in greater degree than the diastolic. In peritonitis the pressure is exceedingly low, and a similar condition observes in large hemorrhage.

Now as to arteriosclerosis, which is a chronic disease of the arteries and arterioles characterized by increase or decrease of the thickness of the walls of the blood vessels. What causes it? Here again there may be a variety of causes. You have in many cases to go to the family cupboard and uncover the family skeleton. The genealogical tree often provides the clue. That syphilis begets syphilitics no man can deny. The birth control faddists have a

pet saying about the "right of the child not to be born," and truly when one sees so much inherited tissue that is poor and even diseased, Mrs. Sanger *et al* are possibly more than empiric. Constitutional disease, degeneration produced by drugs and alcohol, breed true to form, even unto the biblical third and fourth generation. For the tissue we start out in life with we have to thank or damn our progenitors.

Of course, arteriosclerosis can be acquired, still don't lose sight of the fact that poor tissue is less able to ward off attack than good healthy tissue. Its the quality of the tissue, not the severity of the attack that is the deciding factor.

Examinations for life insurance provides a fertile route through which many hitherto unsuspected conditions of arteriosclerosis and high blood pressure have been brought to light. Probably these medical examiners have had better opportunity to observe early cases than have practitioners anywhere. No applicant who has sclerotic arteries and hypertension is a good insurance risk, but although he may be refused, as is most likely to be the case, yet certain good should be the result of his being made acquainted with his condition if he will but submit himself to his own physician for advice and treatment. This leads me on to the now strongly advocated periodic health examinations, and the foregoing is but another argument in the long chain of many towards the consummation of that grand idea.

Now my field is covered, and my limited time almost up. In prescribing treatment, be individual; study your patient, his physical condition and his natural disposition. Treat the man more than the disease. Let hygienic and dietetic measures have full sway; reserve drugs and stimulants for the emergencies. Sell yourself to the patient; inculcate in him a belief in *you* rather than in your remedies. This done, you will have acquired a friend, a follower, a booster if you will, for the duration of his life.

In handling cases of hypertension and its more common accompaniments, you are called upon to treat more than you wot of. You are called upon to relieve pain, physical and mental; you can prolong life. You are presented with opportunities, and ready-to-hand ones, for intimate study and research into something that is all too veiled and obscure in all its phases.

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CONGENITAL ATRESIA OF THE DUODENUM WITH REPORT OF A CASE*

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Congenital atresia of the gastro-intestinal tract in the new born is sufficiently infrequent to warrant a detailed report in every diagnosed case, not only from the standpoint of scientific interest in a rare clinical entity, but also that points of value may be gleaned, from a careful case history, which will aid in a sufficiently early diagnosis to enable us to provide surgical intervention before the case is beyond redemption.

Cases of atresia of the duodenum are divided anatomically into two classes:

1. Those in which the first portion of the duodenum terminates in a blind pouch and has no connection with the remainder of the intestine.

2. Those in which the proximal and distal portions of the duodenum are connected by a fibrous band.

The latter type are in comparison more numerous than the former, but an idea of the great infrequency of cases of this type can be obtained from Losee's (1) compilation from the records of the New York Lying In Hospital who reports one case in a series of 22,800 new born.

Another point of interest in cases of this type is the location of the ampulla of Vater and the relation of the hepatic trinity. After a careful search of the literature Little and Helmholz (2) were only able to find 27 reported cases of Atresia of the Duodenum above the ampulla. The case to be described in this paper, as will be shown later, can be added to this list. Atresia below the ampulla is relatively more common. McDonald (3) reports a case of atresia of the duodenum in which the bile and pancreatic ducts had no connection whatever with the intestines.

The detailed account of the case to be reported including the autopsy record is as follows:

Baby S., born of Polish parents on September 24, 1924 at 8:30 p. m. Father 27, mother 24, both in good health. No miscarriages. One other child living and in good health.

The mother had good prenatal attention. The delivery, however, was unattended but normal in character. The obstetrician arrived about ten minutes after the child was born, at which time, the cord was severed and the placenta, which was normal in every respect was delivered.

The baby had a birth weight of seven and one-half pounds and had no visible congenital abnormalities. Its breathing and cry were normal.

About two hours after birth, the baby retched considerably and vomited about two ounces of

*Read before the Lansing Study Club, Nov. 19, 1924.

brownish black material which, according to the practical nurse in attendance, had little or no odor and resembled coffee grounds. This was before the baby had taken anything into its stomach.

About ten hours after birth the baby was put to breast, but refused to nurse. The breast was pumped and an attempt made to feed the colostrum with the bottle, but this also met with failure and a small amount was finally administered with a medicine dropper.

This type of feeding was continued at four hour intervals with occasional feedings of boiled water. At irregular intervals and with no relation to the feedings, the baby would retch and vomit varying amounts of the black material always similar in character to the first.

A small amount of meconium was passed early in the morning of the 25th and again in the afternoon. History was also obtained of occasional urination of small amounts during the night of the 24th, but none after that.

The condition continued unchanged throughout the day of the 25th, except that in the afternoon the nurse noticed some convulsive twitching of the hands, arms and legs, and a slight retraction of the head. Also a slight degree of dyspnea.

The case was seen for the first time late in the evening of the 25th at which time the history just given was obtained. The baby at our first examination was quiet and seemed to be in no pain. The anterior fontanelle was depressed; the pupils were equal and contracted; there was slight retraction of the head and some rigidity of the neck muscles; the heart sounds were rather weak and extremely rapid; the lungs were negative; the abdomen was not distended and no palpable tumor or visible peristalsis was present; rectal examination revealed nothing; the skin was dry; Kernig's sign was positive on both sides; the rectal temperature was 101 deg. F. The baby had an attack of twitching of the extremities during examination and also vomited some of the black material, a portion of which was saved and at a subsequent examination gave a positive test for occult blood.

A tentative diagnosis of hemorrhagic disease of the new born was made with gastro-intestinal and probably intra-cranial hemmorhage. At this time twenty cc. of whole blood obtained from the father was given intra-muscularly and one dram of castor oil was ordered to be given.

The morning of the 26th the symptomatology and general condition was unchanged, but the baby was perceptably weaker and markedly dehydrated. The stomach was washed and an enormous amount of the black contents recovered, together with an oily substance which proved to be the castor oil given the night before. After lavage three ounces of a 4 per cent soda bicarbonate solution was allowed to remain in the stomach, which was promptly vomited, and one hundred cc. of physiological saline was given intraperitoneally. Following this the baby, which had been previously restless and sleeping only for a few minutes at a time, slept for four hours without waking.

A bleeding time done in the evening of the 26th was 25 minutes and another intramuscular injection of 25 cc. of the father's blood was given. On the 27th the baby's condition seemed slightly improved, but it was still vomiting portions of the food ingested, but the vomitus had no discoloration. The symptoms of cerebral irritation had disappeared. Because of the continued vomiting intestinal obstruction or malformation was considered, but the dehydrated and acidotic condition of the patient made surgery seem inadvisable. The stools had changed from meconium to merely a bile stain on the diaper. Intraperitoneal infusion of saline was twice repeated during the day and also five per cent glucose was given per rectum.

On the 28th the baby was so weak and in such a ragged condition in spite of the large fluid administration, that a blood transfusion was decided upon and at 1 p. m. 50 cc. of citrated mother's blood was given into the sinus through the anterior fontanelle. The general condition improved following this and at 8 p. m. it was repeated.

The baby slept quietly during the greater share of the evening, but at 4 o'clock on the morning of the 29th the nurse was attracted by a choking noise from the baby and found that blood was running from the nose and mouth. In the matter of a few minutes the baby was dead.

AUTOPSY

Permission for autopsy was granted and was performed with the following findings:

Examination revealed an emaciated infant with considerable hypostatic congestion, but no external evidence of anomaly. There was slight abdominal distention limited entirely to the upper abdomen.

Section of the skull revealed two small areas of subpial hemorrhage, one in the right parietal region and the other in the left temporal region.

With the exception of the abdominal condition, the remainder of the autopsy revealed nothing abnormal.

On opening the peritoneal cavity a small amount of serous fluid was found. An enormously dilated stomach filled the entire left upper abdomen and part of the right. The esophagus was slightly dilated near the cardia, but above that was normal. The small and large intestines were collapsed to the point of being ribbon like and on opening, a bile stained mucosa was the only thing found. The pyloric ring was dilated to the width of 3 cm. The duodenum was also markedly dilated, being 6 cm. at its widest portion. It passed up and back for five and one-half cm. beyond the pyloric ring and ended in a blind pouch. The distal portion of the duodenum was located with some difficulty and was found to be collapsed and also to end in a blind pouch. There was no connection between the two portions either by fibrous band or otherwise.

The liver was normal in size and the gall bladder was but partially filled. The hepatic trinity was in correct relation and the common bile duct and pancreatic duct entered the distal portion of the duodenum about one-half cm. from its termination. The pancreas was normal in size and position.

A normal circulatory system was found to be present and no other anomalies were discovered.

On opening the stomach it was found to be partially filled with coagulated blood. Practically all of the stomach wall was markedly thinned. A large area of the mucus membrane of the anterior wall was densely infiltrated with blood. The pyloric ring was dilated to a scarcely perceptable band of fibres. The wall of the proximal portion of the duodenum was also markedly thinned.

THEORIES OF ETIOLOGY

The cause of congenital atresia of this type has been the basis of much discussion and many hypotheses have from time to time been set forth. Fetal peritonitis, fetal volvulus and adhesion of a Meckel's diverticulum have all been offered as possible etiology. They may explain isolated cases, but certainly do not hold good for all. For example, fetal peritonitis would in all probabil-

ity be either tuberculous or luetic in origin. It is hard to conceive of a luetic infection being present and causing an anomaly such as described in an otherwise apparently healthy, full term child. It is likewise improbable that a tuberculous infection would limit itself to one isolated location and give no evidence of trouble elsewhere. A fetal volvulus or adhesions of a deverticulum could cause an occlusion or atresia of the jejunum, illeum or colon, but probably would not effect the duodenum. We have to look to some other more logical reason.

It is a known fact that two of the most frequent locations for an atresia to appear are first, the duodenum in the region of the ampulla of Vater and second, the ileo-cecal region.

Reviewing the stages of development of these particular locations we will remember that they are the sites of very important embryological events. From the duodenum we get the outgrowth which is the anlage of the bile ducts, the liver and the pancreas and is also the site of a very complicated rotation. In the region of the ileo-cecal junction we get an outgrowth which becomes the cecal sacculation and the appendix. It is entirely possible that a congenital atresia could result as a deviation from the normal during these complicated embryological processes. In addition to these points of predilection for congenital atresia there are two more which are not the sites of important or complicated developmental events. These are the splenic flexure and the rectum and anus.

We will consider for a moment the evidence of somatic or segmental development of the human embryo. We have the vertebral and costal development with the spinal nerves and intercostal arteries which can be considered the nerve and artery to a segment; the urogenital ridge and the frequent persistence of an isolated artery direct to the superior pole of the kidney, and other manifestations which could be mentioned. In the abdomen, however, evidence of this is largely lost, due to the growth of the intestinal canal out of all proportion to the remainder of the body, and the resulting coils and rotation. There is, however, one bit of evidence that remains, the blood supply. The three main divisions of abdominal circulation are the coeliac axis, the superior and the inferior mesenteric arteries. In the duodenum in the region of the ampulla of Vater, the superior pancreatico-duodenal, which is a branch of the right gastro-epiploic, anastomoses with the inferior pancreatico duodenal which is a branch of the superior mesenteric. At the splenic flexure the superior and inferior mesenterics anastomose, and at or near the mucocutaneous junction of the anus and rectum the middle hemorrhoidal, a branch of the inferior mesenteric and the inferior hemorrhoidal, a branch of the internal iliac, anatomose. In this way the abdominal circulatory systems are united and these points of anatomosis we can interpret as evidence of somatic development in the abdomen and here as we have pointed out are the most common locations of congenital anomalies.

It is not difficult to see that if in the process of embryonic growth, the blood supply of two of these segments fail to unite, or if the vascular development is in any other way interfered with there may be a portion of each which will not receive nourishment and as a result will undergo atrophy, which may or may not be complete.

There is another view which can be taken as a possibility in the etiology of these anomalies. It has long been an accepted fact that congenital malformations in other parts of the body, as for example the cleft palate, spina bifida, absence of half of a vertebra, horse shoe kidney and bicornate uterus, have resulted from a disturbance in the segmental development of the embryo. Why then, assuming that the vascular arrangement of the abdominal organs is a manifestation of segmentation, can we not say that an atresia at the locations already described is in reality a reversion to the somatic structure of the lower type of animal life? In other words, metameres which failed to undergo fusion?

In our estimation these two are the most logical explanations of the etiology of conditions of this type barring those of course which have some concrete cause demonstrable at operation or autopsy.

POINTS OF VALUE IN THE DIAGNOSIS

As has been said before the formation of hypotheses for the etiology of anomalies of this sort provides extremely interesting subject matter for discussion, but the true value in a detailed case history is in the clinical points which can lead to an early diagnonis, so that surgical treatment, consisting of enterostomy to supply nourishment that can be absorbed or gastro-enterostomy, to provide an exit from the stomach, can be administered before the baby is so weakened that it would be of no avail.

Slight vomiting or regurgitation during the first days of life is very common, but vomiting before anything is taken into the stomach, persistent in character, and in no relation to the food intake is extremely important. The possibility of a hemorrhagic condition in this particular case would of

course exaggerate this symptom somewhat, but in all the reports of duodenal atresia that we were able to find in the literature, this symptom was emphasized.

By way of differentiation it may be well to say that the vomiting in hypertrophic pyloric stenosis seldom manifests itself in the first week or ten days and when it does appear it always has a definite relation to fluid intake. Also the emaciation is more slow in appearing due to the fact that a certain amount of the food reaches the intestine. In these cases too, we are usually able at some time to demonstrate a palpable tumor. Also bacteria can be found in the stool.

The presence of bile in the vomitus of a case of persistent vomiting would not arouse undue suspicion as a certain amount of bile containing duodenal contents could easily be regurgitated into the stomach, but a complete absence of bile in the stool or vice versa, presence of bile in the stool and absence in the vomitus as in our case, should immediately lead you to think of an obstruction or atresia of the duodenum above or below the ampulla as the case may be.

Anuria after the first twelve hours is also an important symptom and is always present due to the inability of the stomach to absorb fluids.

An absence of bacteria and end products of food digestion in the stool is also a significant finding.

The presence of drugs in the vomitus administered the previous day is important as in the case of the castor oil given to this baby.

The extremely rapid and progressive emaciation so far exceeding the usual initial weight loss is still another symptom of importance.

CONCLUSIONS

An effort should always be made to report cases of this type to the literature.

Whenever this condition is suspected or can be diagnosed, a very grave prognosis should be given, for nowhere in the literaturue were we able to find a case which had survived surgical treatment.

An early diagnosis is imperative, for surgical treatment must be instituted before such a state of emaciation and acidosis is reached that an operation could not possibly be tolerated.

The symptoms outlined above should always be thought of when dealing with a case of persistent vomiting in the new born and the possibility of congenital intestinal atresia or obstruction considered.

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THE SURGICAL SIGNIFICANCE OF ACUTE GLANDULAR FEVER*

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The object of this paper is to call your attention to a condition which often goes unrecognized and which may present rather confusing diagnostic problems.

The term, glandular fever expresses more a symptom complex rather than a pathological entity, but it has retained this name since first described by Pfeiffer[1] in 1899 as "Drusenfieber". Osler[2] defines it as an infectious disease of children, developing as a rule without premonitory symptoms, and characterized by slight redness of the throat, high fever, swelling and tenderness of the lymph glands of the neck, particularly those behind the sterno-mastoid muscle.

Similarly other text books pass over this condition rather lightly, mentioning only the fact that there is fever, and swelling of the glands, the fever subsiding in two to four days and the swelling of the glands in ten days to two weeks.

The literature on this subject is unusually meager. We were able to find only three references to the subject in the last four years. West[3], of Bellaire, Ohio, at one time reported ninety-six cases occurring in children between the ages of seven months and thirteen years. All authors who have written on the subject agree as to the general symptomatology. That is, fever, pain in the neck, redness of the throat and pharynx, swelling of the cervical and at times the inguinal lymphatics, but treat only lightly the abdominal symptoms. It is to these symptoms that I wish to call your attention and the possibility of confusing this condition with other acute abdominal symptoms especially acute appendicitis.

Osler simply states that there may be nausea and vomiting. Jameson says that where the retroperitoneal glands are involved alone, the diagnosis is beset with difficulties. Levine[4] in reporting five cases, noted no vomiting but anorexia and constipation were the rule. Zimmerman[5] reports frequently nausea and occasionally vomiting and abdominal pain. Pfeiffer says that pain around the umbilicus indicates involvement of the mesenteric lymphatics.

*Read before The East Side Physicians' Association of Detroit, December 13, 1924.

During the last year or eighteen months, all of you, no doubt, have seen cases of this type, which fall under the typical text-book description of the disease, but I have no doubt that many of the cases of "just fever" in children which recover spontaneously without any satisfactory explanation as to their cause, fall into this category and case number three reported here illustrates quite conclusively that this disease is not confined strictly to childhood.

Allow me to quote from Zimmerman's description of a typical case of acute glandular fever, after which are reported three cases in which the clinical picture was vastly different, leading to a tentative diagnosis of appendicitis. Zimmerman says, "the clinical picture reveals a child taken suddenly ill, with fever rising rapidly to 104 degrees, malaise, frequently nausea and occasionally vomiting, complains of pain in the limbs, and usually pain in the throat and occasionally in the abdomen. Upon examination, swelling and acute tenderness of the glands of the neck are found, below the angle of the jaw usually on the left side. The lateral deep cervical glands can be felt slightly enlarged like a string of beads. The entire lateral and posterior aspects of the neck are dotted with glands. The temperature is very irregular and often rising and falling several times during the day, ranging from 101 to 104 degrees. Recovery is slow, but the prognosis is favorable in most cases. Fatal cases are reported and death is usually due to nephritis. Some cases go on to suppuration of the glands. The total white count ranges from 12,000 to 15,000."

CASE REPORTS

Case 1. A child four years old, white. Past history is unimportant. Had been sick two days when first seen. Began with vomiting shortly after breakfast. Vomited several times during the day and the following night. A purgative was given twice, but could not be retained. The next day the mother says there seemed to be a slight fever, and the patient refused all nourishment, was kept in bed and it was noted that the child preferred to lie with the thighs flexed on the abdomen. There was no bowel movement.

Examination. Child lay with the thighs flexed. There was no rigidity of the neck, no cervical swelling and no tenderness. Ears were negative. The throad was not reddened, tonsils negative and nose negative. Examination of the chest revealed nothing, respirations 26. The abdomen was moderately distended and tympanitic throughout. There was definite rigidity of the recti muscles, especially on the right. The whole abdomen was sensitive to touch, but the tenderness was very marked over the right lower quadrant. There were no areas of dullness and no tumor masses. The child cried when the legs were extended. Rectal examination was negative. Temperature 99.5, pulse 118. A provisional diagnosis of acute appendicitis was made. An enema and ice to the abdomen was ordered. The patient was seen again that evening. The enema had been very effective and the distention of the abdomen had markedly decreased. The tenderness was not so acute and less localized to the right side, and the mother volunteered the information that the child cried when turned in bed and that the neck seemed to be stiff. On examination of the neck it was found that there was a definite beady adenitis along the anterior border of the left sterno-mastoid muscle, and marked tenderness over this region. Temperature was 101. A diagnosis of the glandular fever was now made. Twenty four hours later the swelling on the left showed a marked increase and a beginning involvement of the right. A prolonged but uneventful convalescence followed.

Case 2. Case of Dr. L. O. Geib. Boy, white, aged 8. Had been sick 24 hours. Past history unimportant. Present illness began with vomiting and pain in the right side. Temperature 102. Throat and ears negative. No rigidity of the neck, no tenderness nor swelling of the glands. Chest was normal. The abdomen was extremely rigid. The legs were drawn up in flexion and extension caused pain. Acute tenderness to the right and below the umbilicus. Dr. Geib made a diagnosis of appendicitis. I was called to see the boy the following morning. The abdomen was still very rigid and there was acute tenderness over the right lower quadrant but at this time there was also a definite shotty cervical adenitis on both sides, being more pronounced on the left. The diagnosis was now changed to acute glandular fever. That night the patient had another attack of vomiting and the temperature rose to 103 degrees. The abdominal pain subsided in three days and the fever and glandular swellings gradually disappeared.

Case 3. Female, age 27, white. Past history unimportant except that she had been treated for a mild cystitis about two months ago. This condition had entirely cleared up. Had now been ill about twelve hours. Began with sudden severe cramping pains in the abdomen. Pain now was in the right lower quadrant. Had been vomiting at intervals all day. Unable to retain water. Never had a similar condition before. Bowels moved several times since onset. Last menstrual period about a week ago.

Examination. Head, neck, throat and chest were negative. The abdominal muscles were held very rigid. There was no abdominal respiratory movement. The whole abdomen was sensitive to pressure, but this was especially marked on the right side. Pressure over this region produced a feeling of nausea. There was no area of dullness and no tumor masses. Vaginal and rectal revealed nothing except tenderness high up on the right side. Temperature 101, pulse 120. A diagnosis of acute appendicitis was made, and the patient sent into the hospital. Blood count. Total count, 16,000, polymorphnuclears 85 per cent, lymphocytes 12 per cent.

A possibility of acute glandular fever was considered and dismissed. Immediate operation was advised and accepted.

Operation. Right rectus incision. The caecum with what appeared to be a perfectly healthy appendix was easily delivered. The usual appendectomy was performed. It was noted, however, that there were a number of unusually large lymphatic glands in the meso-appendix and considerable congestion of the mesenteric vessels. On further examination it was found that the entire mesentery was filled with swollen lymphatics ranging in size from a split pea to a lima bean. There were no

palpabe or visible Peyer's patches. The correct diagnosis was now apparent.

Twenty-four hours after operation the patient complained of stiffness of the neck and pain on swallowing. Examination showed the usual tenderness and swelling of the glands under the left sterno-mastoid muscle.

SUMMARY

Here then are three cases of undoubted glandular fever which at first presented a very markedly different picture than the ordinary case. In my opinion the reasons for this are as follows; as previously stated the disease may affect any and all of the body lymphatics, the majority of cases, however, involving only the cervicals.

In the cases reported the brunt of the infection hits the mesenteric glands with the resulting confusing train of symptoms. Just why these symptoms should be more pronounced in the right lower quadrant one would hesitate to say, any more than it is possible to satisfactorily explain why some cases of pneumonia in the early stages very strikingly resemble acute appendicitis. It is possible that the infecting agent gains access to the mesenteric glands by way of the intestinal tract and involving the mesenteric nodes travels up the throacic duct, infecting in turn the cervical glands of the left side. I believe that is the reason why the glands of the left side are usually the first to be involved after the onset of the abdominal symptoms.

As to the differential points in diagnosis, I think they are practically negligible, unless the swelling and tenderness of the cervical glands is already present when the patient is first seen. Another point that may be of minor value is, that the abdominal symptoms and fever seem to be more severe and out of proportion than in the usual case of appendicitis, and the pain is more generalized even though the point of greatest intensity is in the region of the appendix.

In conclusion I would suggest, that before making a diagnosis of acute appendicitis, especially in children, it be remembered that in acute glandular fever is often encountered another of the many pitfalls in the maze of the right lower quadrant.

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PAROXYSMAL AURICULAR FIBRILLATION AND CARDIAC SYNCOPE*

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Syncope due to cardiovascular abnormalities may extend from a momentary loss of mental acuity to complete unconsciousness which later is often accompanied by convulsions, resembling at times more or less superfically, true idiopathic epilepsy. The minor expressions of this common disorder occur as the transient syncopal attacks so frequently observed in people suffering from debilitating diseases and in highly nervous women. Here the attacks are often induced by the sight of blood or by other minor circumstances. The more serious forms are associated with or identified as the Adams-Stokes syndrome, after profuse hemorrhages, or as embolic phenomena and they also frequently accompany the spasm of a cerebral artery.

The tendency to "fainting" or the reaction to a diminished cerebral blood supply varies widely in different individuals, loss of consciousness being readily induced as previously stated in the slender, visceroptotic nervous woman, while it rarely occurs in the slow, phlegmatic type of individual.

In the classical description by Adams of that syndrome now recognized by the name Adams-Stokes, he noted spells of unconsciousness occurring in a man whose heart at autopsy was found to be hypertrophied and very "fatty." This syndrome occurs almost invariably in elderly individuals whose hearts show advanced degenerative change and where an advanced arteriosclerosis is frequently present. This association is so frequent that Huchard advanced the dictum that the Adams-Stokes syndrome is due to arteriosclerosis. This syndrome is frequently associated with, but by no means synonymous with heart block. It is considered as usually being due to ventricular standstill. This condition is rarely associated with acute inflammatory conditions of the heart and its recognition is at once apparent by the sudden stopping or decrease in the ventricular rate occurring synchronously with the loss of consciousness.

Embolism and its resultant phenomena are due to vascular causes and the loss of consciousness is not due to cardiac changes. These accidents are invariably accompanied by signs or sequelae such that their identity is rarely in doubt.

A further cause of syncope and one which occurs usually in elderly sclerotic people is that due to spasm or claudication of a cerebral artery. These attacks are at times accompanied by convulsions. Paralysis of various forms

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are also frequently present and by their transient or temporary nature aid materially in the differential diagnosis.

During the past year we have observed three patients in whom the chief complaint was syncope with dyspnea and palpitation. All three of these individuals were found to have the same typical and distinctive valvular lesion and at the time of syncope they all underwent the same irregularity of cardiac rythm, which, to our mind, appears to stand in a causative relationship to the loss of consciousness.

REPORT OF CASES

Case No. 1. Mechanic, age 56. He was first seen in August, 1924, complaining of spells of unconsciousness with convulsive movements, dyspnea and palpitation. He had had rheumatic fever at the age of sixteen when he was sick for seven weeks. The remainder of his past history was otherwise negative. The present illness had started four years previously with "spells" characterized by unconsciousness, clonic contractions of skeletal muscles, rolling of his eyes, cyanosis and occasional biting of his tongue. This condition would last about one minute and the complete return of mental function was regained in ten minutes. Following the attacks he would be sleepy and tired. The seizures had increased in frequency and but recently had he noted dyspnea on slight exertion, palpitation and a sense of constriction in the chest.

Physical examination showed him to be a short, undernourished individual. The pupils reacted normally to light. There was considerable oral infection. Moderate dyspnea and cyanosis were observed. There was a palpable pulsation of the aortic arch in the suprasternal notch. The apex impulse was felt in the fifth interspace, ten centimeters from the mid-sternal line. The apex rate of the heart was 120, the radial rate 80 with a pulse deficit of 40, the cardiac rhythm being absolutely irregular. There was a rough blowing systolic and a definite presystolic rumble heard at the apex, the latter showing a palpable component. A soft blowing diastolic murmur was heard along the left sternal border. The radial arteries were just palpable, the lungs were clear and the liver edge was felt 8 centimeters below the costal margin. There was no edema of the extremities.

The routine urine examinations were all negative, blood N. P. N. and urea were 45.6 and 22.9 respectively. The blood Wassermann was negative. An electrocardiogram showed auricular fibrillation, the T waves being inverted which inversion was later shown to be due to previous digitalis therapy. Our final diagnosis was: rheumatic heart disease, mitral disease, paroxysmal auricular fibrillation, cardiac syncope initiated by onset of auricular fibrillation.

Case No. 2. Mechanic, aged 39. This patient was brought to the hospital following a sudden attack of unconsciousness which occurred while he was at work. According to his story after regaining consciousness, he had noticed a peculiar sensation in his head which traveled to his stomach and was followed by unconsciousness, he knowing nothing until he awoke later in the first aid station. He had suffered a similar attack eighteen months previously. He had no other symptoms and was not aware of ever having had any rheumatic infection.

Physical examination showed a well nourished man. The pupils reacted promptly to light. The tonsils were enlarged and cryptic. There was cyanosis of his lips. The apex heart rate was 132, radial rate 102 or a deficit of 30. The cardiac rhythm was absolutely irregular. The left cardiac border was 11 centimeters from the mid sternal line, the right border 4 centimeters in the fifth intercostal space. After the heart's rhythm had become regular, a distinct short systolic murmur and a presystolic rumbling murmur ending in a snapping first sound were heard at the apex. There were no thrills nor shocks. The lungs were clear and the spleen and liver were not felt. There was no edema.

The blood Wassermann was negative. An electrocardiogram taken on the day of admission showed a rapid auricular fibrillation with coarse auricular waves, and on the following day, the heart had returned to normal sinus rhythm with marked relief in the patient's symptoms. Our diagnosis was: rheumatic heart disease, mitral disease, paroxysmal auricular fibrillation, cardiac syncope due to onset of auricular fibrillation.

Case No. 3. Mechanic, age 31. He complained of spells of unconsciousness, dyspnea and palpitation. He had rheumatic fever at seventeen and had had frequent attacks of tonsillitis since that time. He had noticed dyspnea and palpitation on moderate exertion for the past four years which symptoms had become worse during the previous four months. The first spell of unconsciousness occurred four years previously and was preceded by a feeling of "too much air in his throat" followed by sudden unconsciousness. In falling he would hurt himself, but there had been no biting of the tongue or marked convulsive seizures. Following these attacks there would be unusual tiredness and he would be very sleepy.

Physical examination showed him to be a muscular and well nourished man. The pupils reacted normally to light. His tonsils had been removed. The chest expanded well and the lungs showed no abnormal changes. There was slight cyanosis of the lips but no dyspnea. There was no unusual pulsation in the neck vessels. The apex impulse was not felt, the left cardiac border was 10½ centimeters from the mid sternal line in the fifth interspace. The muscle tone was fairly good and the heart rhythm showed absolute irregularity. There was a blowing slightly musical systolic murmur at the apex and a faint presystolic rumble ending in a booming first sound was audible in the same area. There were no thrills or shocks. The spleen or liver were not felt and there was no edema of the extremities. The urinary examinations were all normal and the blood Wassermann was negative. The initial clinical examination of the heart revealed the presence of auricular fibrillation with a definite pulse deficit but when the electrocardiogram was taken twenty-four hours later, there was normal sinus rhythm, no extrasystoles, but a P-R interval of .2 of a second or the upper limit of normal.

COMMENT

It is of interest that none of these patients between attacks suffered from any acute heart symptoms or showed sufficient heart failure to prevent their gainful occupation or to cause them much discomfort. The electrocardiogram of each patient taken while normal sinus rhythm was present, failed to show any unusual changes.

It has been recognized that occasionally when paroxysmal auricular fibrillation with slow fibrillary rhythm interrupts a normally rhyth-

mic heart that the transition is frequently accompanied by symptoms similar to those of the Adams-Stokes syndrome.

A further cause of syncope in heart disease is the onset of very rapid ventricular action with the resulting fall of arterial and rise of venous pressure. The results from this change in heart rhythm are, however, proportionate to the health of the ventricular muscle.

All three patients were suffering from auricular fibrillation when seen shortly after their spell of unconsciousness and all resumed sinus rhythm during the following twenty-four hours. The onset of auricular fibrillation is frequently associated with sudden dyspnea, palpitation, feeling of choking or throbbing in the throat and a sense of oppression in the chest, but presumably only occasionally by sudden unconsciousness.

We wish to emphasize the importance of recognizing paroxysmal auricular fibrillation as a cause of sudden syncope, at times associated with convulsions or even somewhat resembling epilepsy.

It is unfortunate that we were not able to observe our patients at the time of the heart's transition from normal to abnormal rhythm, and that our opinion must be based to a certain extent on presumption. However, the presence of identical heart disease with an essentially negative previous symptomatic history and with the rapid cessation of the disturbed rhythm following the attack, makes the association very evident.

In the first case, whose age was 56 years, the question might arise as to whether he were not subject to true epilepsy, idiopathic or on an arteriosclerotic basis. His identical history, type of heart disease and paroxysmal irregularity all point, however, to placing him more in the group of cardiac syncope.

The most important element in these cases is naturally the proper recognition of the cause. Once recognized, rational therapy can be instituted and measures taken for the protection of the individual.

SUMMARY

The various cardiovascular causes of syncope have been briefly stated and discussed.

Three cases have been presented in whom syncope appeared to be due to the onset of paroxysmal auricular fibrillation.

The importance of recognizing the sudden onset of auricular fibrillation as a cause of sudden unconsciousness has been emphasized.

THE TREATMENT OF ACUTE EPIDIDYMITIS

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It is the purpose of this paper, to point out certain principles in the treatment of Neisserian infection of the lower genital tract in the male, with special reference to the early or acute phases of conditions commonly known as orchitis, vasitis and epididymitis.

It would be difficult, indeed, to consider the treatment of these complications, without first having briefly touched upon the most important factor, namely, preventive measures. The gonococcus is delivered to the anterior urethra through the external meatus by direct contact. It is further transferred to the posterior urethra either by forces from without—forcing bacteria laden pus back of the cut-off muscle with solutions or instruments or other traumatism—or by direct extension of a column of exudate along the membrane through obstructive factors such as small meatus, stricture, oedematous urethral wall, periurethritis, or others involving a blocking of the secretions. There is an impression, which appears to have a host of adherants, not only among the laiety, but among the profession, that all posterior inflammatory reactions are forced back from the anterior urethra by mechanical means in the hands of the attending physician of the patient. Nothing could be more erroneous. One is more often impressed with striking fact that more of such complications are not the rule. Indeed, it has been to me, more difficult to understand why these patients get well than to see multiple reasons for their failure of recovery. Centainly, it is not any more justifiable for the physician to assume full credit for prevention of such complications, than it is to censure himself for their occurrence, provided he has fulfilled only such duties as are in his power.

As soon as the gonococcus is delivered to the ejaculatory duct, an inflammatory reaction travels to the vesicle and vas by much the same manner as in the urethra, namely, bacterial growth behind an inflammed mucous membrane obstruction. So long as drainage is sufficient through the duct, the infection may go no further than the vesicle and although there may be a marked posterior urethritis with the usual prostatitis, Cowperitis or vesiculitis, one may frequently meet no lower tract infection, whatsoever. It is quite obvious then, that with an infection behind the triangular ligament it is the rule that infection of more than one of the paraurethral tracts is present. This being the case, it is evident that prognosis should be carefully and honestly given to obtain real cooperation of the patient. I believe that evidence of posterior infection can be demonstrated in the majority of specific urethritis cases. Why not admit the seriousnes of the infection at its onset rather than to belittle the real condition? These patients are entitled to the fact and in my experience, appreciate being told the truth.

The gonococcus almost invariably takes the mucus membrane extension route to the

lower genital tract, rather than the hematic or lymphatic. Therefore extension along the lumen of the vas is the rule, though symptoms of this complication may be vague or may vary greatly. It is not until the infection has extended to the tail of the epididymus, frequently, that the patient is aware of his impending condition. Clinically, at least, epididymitis cases fall under two heads. First, are those which come on abruptly, any time during the infection, with great swelling of the scrotal walls, redness, pain, sickening in character, extending from the involved area, with fever, chills, leucocytosis, and the usual malais of pyogenic infection. Second, those with moderate vasitis, moderate swelling in the region of the tail of the epididymus, and no definite involvement of the remaining portions of the organ. There is no hydrocele and for that reason the signs of pressure on the testes are not manifest in the autonomic nervous system. There is not enough passive congestion of the tunica viginalis to cause acute pressure signs; the principles involved being much like other serous effusions in serous sacs elsewhere.

Pathological changes in these cases are directly proportional to the parts involved and the destruction wrought may be of the type such as can undergo repair, but in the majority, it is so destructive as to render the tract impervious to spermatoza even after the best of treatment. The fibrosis in the lumen of the tubules as well as in the supporting structure in the majority of cases becomes marked enough to completely obstruct their functional activity. Rarely does abscess of the gonorrheal epididymus burrow through the coverings to the exterior, much unlike that of tuberculosis of that organ. The majority of these cases recover symptomatically. Some, of course, go on to chronicity. They are self limited so frequently, that one finds it difficult to accredit the so-called cure of the condition to the selected method of treatment. I am frank to admit that from my observations to date, I am not enthusiastic about any form of treatment, be it surgical, medical diathermy, local or general. One sees so frequently reports of series of cases, large and small, treated by this or that method; the one used in each case by the author being held out as a Panacea.

Any means to prevent the occurrence of an acute epididymitis or to hasten its resolution or symptomatic recovery should be considered. The general treatment of the case both from a systemic and local standpoint should be attended to. Rest in bed is imperative. Support of the scrotum is important. Local applications such as heat and cold, poultices, analgesic compounds are frequently valuable. I believe that some of these measures or a combination of them should be always employed. Should the infection show an increasing severity, unless there is some contraindication, I have found that surgical intervention has given some brilliant results in this latter type of cases. In my experience, the early hospitalization of the severe or moderately severe type with early surgical intervention, has given the best results. Up to the present at least, I believe I have made the mistake more frequently of failing to operate early than I have the reverse. The surgical treatment of these conditions as in the surgical treatment of conditions elsewhere, too frequently carries with its performance, the implied promise of cure, rather than the fact that it is but a single procedure in the general treatment of the disease. With this in view, operative means should be resorted to if such are shown to expedite actual or symptomatic recovery.

Relief from pain is the factor in bringing 90 per cent of patients to the physician. The patient with acute lower genital tract infection is no exception to the rule. Early relief to the vaginalitis or acute hydrocele is the most expedient means of accomplishing this end, and I know of no better method for so doing than by opening and draining the tunica vaginalis cavity. In giving relief to the pressure of fluid, venous and arterial obstruction is minimized. The short period of convalescence in such cases is, I believe, a valuable economic factor, and should be considered as a distinct advantage.

Carried out as they are, under gas-oxygen anesthesia, these operative procedures give one an opportunity to explore the tunica vaginalis cavity, open any apparent pus pocket in the body or head of the epididymus, as well as to treat in the appropriate manner, the vas or tail of the organ. Filling the upper genital tract with antiseptic solutions at this time, as we frequently have done, may have a preventive effect on the unaffected side, as well as a curative effect on the infected tract. Routine epididymectomy, I mention at this point only to condemn, for reasons quite obvious.

We have seen good results with the use of medical diathermy in the acute stages, and believe that this treatment gives promise of being of great benefit if properly used. What damage to the seminiferous tubules in man is done by heating the testes to the temperature used has not been demonstrated conclusively to date. I can neither condemn nor recommend this form of treat-

ment at the present time, although I am using it as an adjunct to other methods. Actinic therapy is of value, and has, in a few cases, appeared to be helpful. The vaccine treatment has given little or no results in my hands. The allergy of foreign protien has in certain cases appeared to hasten recovery in a fair percentage of cases. The intravenous injection of dyes, sodium iodide and the like, has never impressed me with being particularly efficacious.

The vast majority of acute epididymi occur and recover, symptomatically, through no fault of the physician. That method found to be used in dealing with all, to the exclusion of others is yet to be formulated.

MICHIGAN ANNOUNCES $175,000,000 ROAD SYSTEM

Grand Rapids, Mich.—Announcement is made by Secretary Hugh J. Gray of the Michigan Tourist and Resort Association that with the $18,000,000 to be expended in 1925 by the state in highway construction, Michigan has a $175,000,000 hard road system.

All of the funds provided under the Connelly $50,000,000 road bill have been expended, that fund having been completed in the past year and the 1925 expenditure is with new money raised by the state. This amounts to some eighteen millions of dollars, which will provide Michigan, and West Michigan, with additions to the great system of inter-connecting highways and trunk lines. In West Michigan it will open up resort sections that have hitherto not been entirely accessible to motorists. Virgin forests and lakes will become part of the itinerary of thousands of motorists through the efforts of the road builders.

Great tracts of territory near West Michigan's shore line will be the scene of summer sports which have already given West Michigan the name of "The Playground of a Nation."

There are at present two noted highways that stretch from the southern state line to Mackinaw at the north, known respectively as the West Michigan Pike and the Mackinaw Trail. Present and proposed road construction will offer new feeder lines to these highways, and new branch roads for vacationists. These will, however, remain as the backbone of the West Michigan highway system, in line with the state's original plan.

All indications point to an ever-increasing volume of motor traffic, and the state is preparing to take care of it well in advance of immedate requirements. Auto parks and free camping sites have been added and hotel facilities increased, until the organization for caring for visitors is more than adequate for the 1925 season. Whatever the traffic may be for the season of 1925, it will find West Michigan in a better condition than ever before to offer visitors the finest facilities for enjoyment of any summer country.

IT BEATS THE DEVIL

A colored preacher called on a white minister. He found the white man busy writing.

"What you-all doin'? he asked.

"I'm preparing notes for my sermon for Sunday."

The colored gentleman shook his head. "I certainly would never do dat, sir," he said. "De debbil am a-lookin' right over your shoulder and he knows everything you gwine to say and he am prepared for you. Now, I don't make no notes and when I gets up to talk, neder me nor de debbil hisself don't know what I'm goin' to say."

A BIT O' FUN

Stop and let the train go by—
It hardly takes a mniute.
Your car starts out again intact,
And better still—you're in it!

He "What ya think, girl, I'm out for spring practice!"

She—"Oh, Charlie, ain't that lovely. How far can you spring?"

SLIGHTLY DAZED

Speaking of white mule, two rustic sports were uncertainly flivvering their way home from the county seat. "Bill," said Henry, "I wancha to be very careful. First thing y'know you'll have us in a ditch."

"Me!" said Bill in astonishment. "Why, I thought you was driving."

BUYING WITH FORESIGHT

A darkey, being the father of twelve children, all of whom he had rocked in the same cradle, was putting the latest arrival to sleep.

"Rastus," said his wife, "Dat cradle am 'bout worn out."

"'Tis 'bout gone," replied Rastus, "You all bettah get 'nother, and get a good one—one dat'll last."

"Is your son out of danger yet?"

"No, the doctor is going to make three or four more visits yet."

A SKIN GAME

She: "What were you doing after the accident?"
He: "Scraping up an old acquaintance."

ASK DAD, HE KNOWS

Hebrew: "Any old rags today, sir?"
Henry: "No; my wife is away in the country."
Hebrew: "Ah! Any old bottles?"

HARD BOILED

Two negroes were lying behind a packing case on the dock at Brest, taking the labor out of the alleged Labor Battalion. Said one boastfully: "Boy, Ah comes f'um a tough breed. Mah ole man done cut his nails wif an ax an' brush his teef wif a file."

"Huh, ain't so tough. Mah ole man am a plumber, an twice a week he done shave hisself wif a blow torch."

TOO MUCH KICK

Jack: "So your father demurred at first because he didn't want to lose you."

Ethel: "Yes, but I won his consent. I told him that he need not lose me; we could live with him, and so he would not only have me, but a son-in-law to boot."

Jack: "M'm! I don't like that expression 'to boot'."

FINE WORDS DIDN'T WORK

Terrence: "'Tis a fine kid ye have there. A magnificent head and noble features. Could you lend me a couple of dollars?"

Pat: "I could not. 'Tis me wife's child by her first husband."

A man without a smiling face should not open a shop.

AN IMPORTANT CONSIDERATION

Lecturer: "Young man, all my success in life, all my financial prestige, I owe to one thing alone—Pluck. Take that for your motto, Pluck, Pluck, Pluck."

Student: "Yes, sir, but whom did you pluck?"

PUBLIC HEALTH ACTIVITIES

Edited By

MICHIGAN DEPARTMENT OF HEALTH

BACTERIOLOGICAL EXAMINATION FOR B. TUBERCULOSIS

In the past it has been the practice of the laboratories of the Michigan Department of Health to inoculate into guinea pigs all material except sputum submitted in cases of suspected tuberculosis. This has been done whether or not the specimen indicated such a procedure. The low percentage (see table below) of positive findings would indicate an unnecesasry slaughter of guinea pigs, for negative findings are of no value to clinicians when the specimens are not representative of the pathology. Space does not permit a detailed discussion of the physical character of specimens received in these laboratories. There are, however, two outstanding facts which require consideration; i. e., tubercle bacilli are always entangled in the coagulum of a fluid; and, tubercle bacilli are usually few in number in urine and fluids without coagulum; consequently, the more material submitted the greater the possibility of recovering the bacilli in the guinea pig.

In the future we plan to give careful consideration to the value of an animal inoculation with material submitted, and invite the physicians' consideration of our routine procedure which follows:

LABORATORY PROCEDURE*

I. Sputum.

1. Report physical findings[1].
2. Sterilize all specimens except those the character and history of which indicate making culture or animal inoculation. Add 10 c.c. of 1 per cent sodium carbonate in 1 per cent phenol solution to 5 c.c. sputum before sterilization if specimen is tenacious[2].
3. Remove supernatant fluid from sterilized specimens and make smears from the sediment using one slide for one smear, and stain by Ziehl-Neelson method.
4. Save slides and specimens until reports are checked by senior bacteriologist.
5. Report the absence or presence of cells and note predominating type.

Caution: Four or five acid-fast bacilli do not constitute a positive finding and should be confirmed. Swabs are not satisfactory for diagnosis.

6. Animal inoculation. Inoculate guinea pigs when requested by physician. Treat specimen with antiformin.

*From Routine Procedures, Bureau of Laboratories, Michigan Department of Health.

II. Urine. Urine is examined for tubercle bacilli, when tuberculosis is suspected, or clinical diagnosis is doubtful.

1. Report physical findings.
2. Smear: centrifuge entire specimen. Dilute if debris is present. Make smears from sediment. Use serum when necessary for fixing smears.
   (a) Stain smear by Gram's method[3].
   (b) Stain smear by Ziehl-Neelson.

Report "Acid-fast bacilli 'found' or 'not found'". Smear findings are not conclusive and animal inoculation should be made.

3. Culture. Culture sediment as a control of material for animal inoculation, and for diagnosis of infections of the urinary tract other than tuberculosis, if specimen is catheterized urine.
   (a) Streak blood plate.
   (b) Streak Endo plate.
4. Animal inoculation. Make animal inoculation to confirm findings of acid-fast bacilli, or as further aid to diagnosis when acid-fast organisms are not found. Treat sediment with antiformin unless culture of sediment shows no growth.

III. Transudates and Exudates. (Various body fluids, ex. spinal, pleural, etc.) All specimens are examined for tubercule bacilli when clinical diagnosis is doubtful or tuberculosis is suspected.

1. Report physical findings[4].
2. Procedure.
   (a) Clear fluid or fluid with flocculent sediment.
      (1) Centrifuge.
      (2) Smears. Make three smears.
         a. Stain by Wright's method for differential cell count.
         b. Stain by Gram's method.
         c. Stain by Ziehl-Nelson.
      (3) Culture. As in Urine.
      (4) Animal inoculation. As in Urine.
   (b) Fluid with coagulum. (Characteristic of tuberculosis).
      (1) Digest coagulum.
      (2) Centrifcge, wash and make smear sediment.
      (3) Stain smear by Ziehl-Neelson method.
      (4) Inoculate guinea pig as a further aid in diagnosis.
   (c) Pus. Pus is associated with so many pathological conditions other than tuberculosis that every specimen should receive general bacteriological examination, including an examination for ray fungus, before proceeding with technic for tubercle bacilli.
      (1) Treat with antiformin.
      (2) Centrifuge and wash sediment.
      (3) Make smear and stain by Ziehl-Neelson method.
      (4) Animal inoculation. Inoculate guinea pig to confirm findings of acid-fast bacilli, or as a further aid in diagnosis.

IV. Animal Inoculation.

1. General.

(a) All cages containing inoculated animals shall be labelled with tag giving date of inoculation, ear tag number, name of doctor, kind of specimen and name of worker. The outline on back of tag shall show characteristic color markings of the animal. The tag is to be securely fastened upon the cage.

(b) Each pig shall be identified by ear tag.

(c) Record of animal inoculation shall be kept on cards. This card records doctor's name and address, patient's name, kind of specimen, date received, preliminary findings, date of inoculation, amount of inoculum, method of inoculation, pig number, and name of worker. The animal inoculation card shall be kept in bacteriologist's file until animal is autopsied at which time it will be used for autopsy report. The card will then be turned into the office for reporting and filing.

(d) An animal inoculation card shall be filed for each animal used for experiment or research, as well as or diagnostic purposes. In the case of experimental work, the character and result of the experiment shall be recorded on card.

2. Procedure.

(a) Inoculate guinea pig weighing 350-450 grams with 1-2 c.c. saline emulsion of sediment subcutaneously in groin after bruising inguinal gland to render more susceptible to infection.

3. Diagnosis.

(a) Weigh pig at time of inoculation. All inoculated pigs shall be examined and weighed weekly, and observations recorded on back of animal inoculation card.

(b) Kill pig and perform autopsy when there is loss of weight and enlargement of glands.

(c) If pig is normal at the end of four weeks, report same to doctor and observe pig two weeks longer.

(d) At the end of six weeks, kill pig if necessary, perform autopsy and report, unless condition indicates further observation.

(e) Make positive diagnosis upon the presence of tubercles and demonstration of tubercle bacilli in spleen lymph nodes.

4. Examination shall be reported:

(a) "Date of inoculation, number of pig, guinea pig died, or was killed, B. tuberculosis 'found' or 'not found' at autopsy, date."

(b) "Date of inoculation, number of pig, guinea pig showed no symptoms to date, date of reporting. We would like to observe this animal for two weeks longer."

(c) If pig dies before end of incubation period, perform autopsy, and report "Guinea pig (number of pig), inoculated (date), died date) before expiration of incubation period. Cause of death."

COMMENT

Based upon the procedure as outlined we should get better results than those shown in the above table. We feel that if the clinician will give greater attention to the selection and collection of the material for laboratory diagnosis, the laboratory can render him a better service than heretofore.—C.C.Y.

REFERENCES

1. Chemical Diagnosis by Wood, p. 381.
2. J. Lab. and Clin. Med., 6:41, Oct. 1920
3. Stains and Staining Methods. Pathogenic Microorganisms, Park and Williams, Lea and Fibiger, 1924.
4. Diagnostic Methods by Webster, p. 736.

PERIODIC PHYSICAL EXAMINATIONS

One of the speakers at a Post Graduate Medical Conference announced that he was leaving the meeting to speak at a Parent-Teachers' Association meeting about periodic physical examinations. "If any of these folks come to your offices afterwards," he said, "don't tell 'em that this examination idea is bunk, and to call again when they're really sick." Evidently the doctor had experienced this sort of a reaction from previous attempts to enlighten the public. Even the most superficial review of the idea makes it plain that he was talking from well grounded facts when he urged the members

TABLE I.

A comparison of the laboratory results by animal inoculations for the years 1921, 1922, 1923, 1924.

Source	1921 +	1921 +—	1921 Totals	1922 +	1922 +—	1922 Totals	1923 +	1923 +—	1923 Totals	1924 +	1924 +—	1924 Totals
Spinal Fluid	3	3	13	1	0	12	3	0	13	2	1	18
Pleural Fluid	0	14	28	6	3	35	5	4	54	4	5	49
Knee Fluid	1	2	11	1	1	6	0	1	13	0	0	3
Ascitic Fluid	0	0	5	1	0	5	1	3	17	0	0	6
Shoulder Fluid	0	0	0	0	0	0	1	0	2	0	0	0
Elbow Fluid	0	0	0	0	0	0	0	0	2	0	0	0
Hydrocele Fluid	0	0	0	0	0	0	0	1	1	1	0	1
Seminal Fluid	0	0	0	0	0	1	0	0	0	0	0	1
Abscesses	0	0	0	0	0	0	0	0	0	1	1	15
Feces	0	0	1	1	0	4	0	0	5	3	0	4
Sputum	0	2	13	0	0	12	2	1	35	1	0	24
Glands	0	0	0	0	0	0	3	1	12	1	0	4
Not given	6	5	16	8	0	21	6	0	24	1	0	9
Urine	3	14	75	6	4	79	8	4	128	5	2	120
Tonsils	0	0	0	0	0	0	0	0	0	0	0	4
Bile	0	0	1	0	0	0	0	0	0	0	0	0
Totals	13	40	163	24	8	175	29	15	306	19	9	260
Percentage	8%	20%		13%	4.5%		9.4%	5%		7.3%	3%	

+=Tubercle bacilli recovered from guinea pig

+—=Death of guinea pig before expiration of incubation period. Note the decrease beginning in 1922 because of improved housing conditions in new animal quarters.

of the Conference not to belittle the importance of physical examinations at stated intervals.

Much has been said and written about the results of the draft examinations during the World War. The astonishingly high percentages of young men who were unfit for military service have been quoted by hundreds of lecturers on sociology and public health, and used in print as the reason for all sorts of shortcomings—most often to prophesy the future downfall of church and state unless something is done. The majority of these pessimistic utterances have been rather vague and have not carried with them any definite information as to what the diseases and defects were. The following table compiled from "Defects Found in Drafted Men," War Department, U. S. A., is a resume of the findings from examining Michigan men. Only defects which occurred at the rate of 0.5 per 100 men, or more frequently, are included.

MICHIGAN DRAFTED MEN

Name of Defect	Number per 100
Tuberculosis (pulmonary and suspected)	1.99
Tuberculosis (all forms)	2,21
Syphilis	.85
Gonococcus infection	3.54
Veneral diseases (all)	4.45
Veneral diseases (all), alcoholism and drug addiction	4.52
Curvature of spine	.51
Goitre, exophthalmic	.69
Goitre, simple	1.14
Defective hearing	.50
Deaf and dumb, mute; deaf; defective hearing	.65
Mental deficiency	1.14
Mental alienation	1.39
Myopia, defective vision, astigmatism, and hyperopia	3.26
Blindness in one eye, or in both eyes	.77
Myopia, defective vision, astigmatism, hyperopia, blindness	4.04
Otitis media, perforated ear drum	.96
Tonsillitis, hypertrophic	1.03
Endocarditis and valvular diseases of the heart	4.36
Cardiac hypertrophy, cardiac dilation	.66
Organic diseases of the heart	5.03
Tachycardia	.93
Hemorrhoids, varicocele, varicose veins	.89
Defective and deficient teeth, with dental caries	1.79
Hernia	2.48
Enlargement of inguinal rings	1.92
Hernia and enlargement of inguinal rings	4.39
Fractures	.76
Ankylosis (bony ankylosis or fibrous)	.76
Hammer toe and hallux valgus	.61
Pes planus	11.14
Pes planus and pronated foot	11.48
Foot deformity not specified; pes cavus	.62
Metatarsalgia	.55
All foot deformities	13.25
All hand deformities	.91
Miscellaneous deformities	.77
Underweight	1.79
Defective physical development, deficient chest measurement, underweight, underheight	2.25
Mechanical defects (all)	22.25

The list of abnormal conditions shows the clinician what he may expect to encounter when he examines supposedly well young adults.

A common finding will be pes planus in at least eleven out of every hundred patients, and heart disease will be frequently discovered. Perhaps the foremost impression the compilation gives is its length, and the great variety of diseases and defects. The periodic physical examination must be inclusive, and must be thorough.

The army tabulation is applicable only to young adults. The relative frequency of pathological conditions would be quite different earlier in life. The 6797 children under five years of age examined by the Michigan Department of Health Keep Well Institute in 1923 and 1924 are a representative sample of the state's infant and preschool population. The results of these examinations are as follows:

INFANTS AND PRESCHOOL CHILDREN

Name of Defect	per 100 Number
Underweight 10 per cent or more	20.2
Malocclusion	4.0
Decayed teeth	17.1
Diseased tonsils	24.3
Enlarged adenoids	13.3
Enlarged lymph glands	11.0
Enlarged thyroid	5.3
Anemia	4.2
Skin disease	5.1
Eye defects	2.4
Ear defects	3.5
Respiratory disease	2.5
Bronchoadenopathy	2.5
Persistent thymus	.2
Hear murmur	4.0
Rickets	5.8
Hernia	4.4
Phimosis	6.8
Bone and muscle defects	12.1
Congenital defects	3.9
Mental defects	1.0
Miscellaneous	3.4

The average Michigan family thinks very little about the prevention of disease. During vaccination campaigns, it was found that 64.84 per cent of those attending the clinics had never been vaccinated for smallpox before. It is known that only ten per cent of the children of the state have been immunized against diphtheria. The percentage of those vaccinated against typhoid fever is much smaller.

The average young man examined for military service showed at least one defect. Infants and preschool children showed an average of 1.57 defects per child. In other words, practically every individual in these age groups will show some abnormality—and there is no reason to believe that conditions are any different at other ages. The

physician should discover curable diseases and correctable defects whenever he examines a supposedly healthy patient. "Well" people are seldom entirely well.

Chalmers J. Lyons, D. D. Sc., of Ann Arbor, has been appointed by Governor Groesbeck as a member of the state advisory council of health, taking the place of Dr. Frank M. Gowdy of St. Joseph, whose term expired.

Dr. Lyons is professor of oral surgery in both the medical and dental schools of the University of Michigan, and is a past president of the Michigan State Dental Society.

MARCH REPORT

The report for March is a very satisfactory one, with all but three diseases showing a decrease. An increase is noted in the number of cases of pneumonia and of tuberculosis reported, and a slight increase in whooping cough.

Particular attention is invited to the sharp decrease in the number of cases of diphtheria. This falling rate has now persisted for three months. In the first three months of this year there have been reported 1,059 cases as compared to 2,229 in 1924. This is a decrease of 52.5 per cent. While a great deal of work has been done for the prevention of this disease, it is all too recent to account for this sharp decline. Reports indicate that there is an epidemic of diphtheria in Europe at this time, but the United States seems to be enjoying a period of very low rates. The history of the disease seems to indicate that it is usually endemic, but without marked periodicity. It is to be hoped, however, that the people and medical profession will take advantage of this reduced incidence to push immunizing campaigns and be better enabled to control the increased incidence we may expect in the fall.

The death rate for the first two months is very satisfactory, showing a rate of 12.6 per thousand population as compared with 15.9 for the same period in 1924.

The birth rate is 24.3 as compared with 23.3 for the same period of 1924.

The death rate for these two months of 12.6 is only .5 higher than the rate for the entire year 1924, in spite of the fact that the rate covers the two months which are always high on account of the increased incidence of respiratory affections in the winter months.

In the March issue of the Journal the statement was made that no licenses had been issued for biological products for the prevention or treatment of scarlet fever. Since that publication, the United States Hygenic Laboratory has issued a blanket license for scarlet fever antitoxin to certain biological houses. Under the regulations of the licensor, the scarlet fever antitoxin can be made either by the Dochez or Dicks method and can be labeled as scarlet fever antitoxin, concentrated or unconcentrated.

Controlled experiments have demonstrated conclusively the therapeutic value of concentrated scarlet fever antitoxin. The value of unconcentrated antistreptococci serum, now called unconcentrated scarlet fever antitoxin, is questionable when the ultimate effect of the product on the patient is considered. There is no essential difference between scarlet fever antitoxin, unconcentrated, and antistreptococci serum which has been on the market for 25 years, except that the streptococcus scarlatina, identified by its toxin production, is used to immunize the horses. Before any physician uses these products in his practice, he should carefully read the literature which has appeared in the last year on the subject of scarlet fever prophylaxis and treatment with specific sera.

Licenses have not been issued for the Dick toxin for prophylaxis of scarlet fever, although the Dick toxin is the basis for the licensing of the antitoxin.

Ionia County no longer fears diphtheria. A county wide protection campaign was completed on April 10. Fifty-five hundred children—60 per cent of the population under 15 years of age—received three toxin-antitoxin treatments. Since the majority of deaths from diphtheria occur in childhood, the possibility of there being any appreciable mortality from this cause in Ionia County is very remote.

No severe reactions following toxin-antitoxin administration were reported. The number of individuals treated is sufficient proof for the statement that diphtheria immunization is harmless. Patients can be promised protection without the expectancy of constitutional disturbances after toxin-antitoxin treatments.

The Washtenaw County Medical Society has sponsored, and is carying out a diphtheria protection campaign. Similar campaigns have been undertaken in many cities and towns. Like Ionia County, all these communities will soon regard diphtheria as an exceedingly rare disease. Unfortunately, toxin-antitoxin immunization has received so little attention from the state as a whole that there is no immediate prospect of diphtheria cases becoming unusual enough to warrant reporting them as medical curiosities. Instead of such reports, Michigan's excessively high mortality from diphtheria will continue to

be an appropriate topic for discussion at medical meetings. We believe that diphtheria should be relegated to ancient history—and we are sure that most of the parents of Michigan children concur in this opinion. But we realize that unless every physician tells his patients about immunization, and gives them toxin-antitoxin treatments, such an ideal is outside the realm of possibility.

PREVALENCE OF DISEASES

MARCH REPORT

Cases Reported

	Feb. 1925	March 1925	March 1924	Average
Pneumonia	596	849	665	949
Tuberculosis	535	406	216	473
Typhoid Fever	31	38	51	62
Diphtheria	302	339	636	680
Whooping Cough	440	364	348	556
Scarlet Fever	1,368	1,717	1,866	1,363
Measles	692	771	3,277	2,669
Smallpox	59	80	760	474
Meningitis	12	19	11	17
Poliomyelitis	8	3	3	3
Syphilis	1,067	1,301	1,057	794
Gonorrhea	739	843	735	717
Chancroid	8	11	12	14

CONDENSED MONTHLY REPORT

Lansing Laboratory, Michigan Department of Health, February, 1925.

	+	—	+—	Total
Throat Swabs for Diphtheria				3829
Diagnosis	78	762		
Release	151	475		
Carrier	33	2283		
Virulence Tests	26	21		
Throat Swabs for Hemolytic Streptococci				3604
Diagnosis	819	285		
Carrier	284	2216		
Throat Swabs for Vincent's	16	814		830
Syphilis				11652
Wassermann	1033	4769	89	
Kahn	1165	4531	65	
Darkfield				
Examination for Gonococci	172	1606		1778
B. Tuberculosis				472
Sputum	49	391		
Animal Inoculation	2	30		
Typhoid				137
Feces	6	64		
Blood Cultures		16		
Urine	1	4		
Widal	7	39		
Dysentery				
Intestinal Parasites				28
Transudates and Exudates				199
Blood Examinations (not classified)				321
Urine Examinations (not classified)				327
Water and Sewage Examinations				318
Milk Examinations				101
Toxicological Examinations				6
Autogenous Vaccines				11
Supplementary Examinations				310
Unclassified Examinations (including Dick test surveys)				1632
Total for the Month				25555
Cumulative Total (Fiscal year)				190500
Increase over this Month last year				6804
Outfits mailed out				15911
Media Manufactured, c.c.				422470
Diphtheria Antitoxin distributed, units				19243000
Toxin Antitoxin distributed, c.c.				45065
Typhoid Vaccine distributed, c.c.				843
Silver Nitrate Ampules distributed				5176
Examinations made by Houghton Laboratory				1698

HOW X-RAYS ACT ON TUMORS AND CANCER

How the X-ray acts on tumors and cancers is explained to its readers by *Hygeia,* popular health magazine publisher by the American Medical Association, in its April issue. Says the magazine:

The present opinion as to the action of X-rays on tumor cells is that there is a directt killing action on the cells themselves and a secondary starvation action plus an arrest of the flow in the lymphatic vessels in the region treated.

All malignant tumors have a large number of cells of a young type which multiply rapidly and perhaps never show the appearance under the microscope of mature cells. These young cells are more unstable than the mature cells; when acted on by a proper dose of X-rays are actually broken down before the normal cells. The trick of the application is to take advantage of the difference in sensitiveness to the X-ray and give a dose that will kill the tumor cells and only perhaps stimulate the normal.

One secondary manner of affecting tumor by X-rays is by the production of inflammation in the lining walls of the very finest blood vessels. This diminishes the blood flow to the tumor cells and virtually starves them.

Repeated X-ray doses also act in this manner on the lymphatic channels and as cancer spreads mainly by the lymph vessels its extension to adjacent tissues is more or less blocked.

SAYS WORKMAN WANTS HEALTH PROTECTION

The American workman is not so much after the "almighty dollar" as he is after fair play. To support this contention, Lee K. Frankel, vice president of the Metropolitan Life Insurance Company, writing for the April *Hygeia* on "The Health of the Worker," says:

The vocational director of a community welfare organiation was discussing zwith a man two positions with two different brass manufacturing companies, one paying several dollars a week more than the other. To the director's surprise, the man showed a preference for the job that paid the lesser salary.

"I'll try this one," he said. "They has a heart and takes care of their men."

The workman wants reasonable hours, healthful working and living conditions and suitable time for recreation, Mr. Frankel declares.

FINDS DEAF PERSONS VERY INTROSPECTIVE

Deaf persons are the most introspective individuals in the world. Psychologically they are turned upside down.

So says Dr. Harold Hays, New York specialist in ear disorders, in the April *Hygeia,* popular health magazine published by the American Medical Association.

Almost all deaf persons have a mental twist that makes them think they should be ashamed of their infirmity, Dr. Hays declares. The result is that they won't help themselves, either by lip reading or by a hearing device.

Don't forget that every family tree has its sap.

The Journal
OF THE
Michigan State Medical Society
ISSUED MONTHLY UNDER THE DIRECTION OF THE COUNCIL

PUBLICATION COMMITTEE
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C. D. Darling.....Ann Arbor
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Grand Rapids, Michigan

Entered at Grand Rapids, Michigan, Postoffice as second class matter.
Acceptance for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917, authorized August 7, 1918.

All communications relative to exchanges, books for review, manuscripts, news, advertising and subscriptions are to be addressed to F. C. Warnshuis, M. D., 4th Floor Powers Theatre Building, Grand Rapids, Michigan.
The Society does not hold itself responsible for opinions expressed in original papers, discussions, communications, or advertisements.

Subscription Price—$5 per year, in advance

MAY, 1925

Report Malpractice Threats Immediately to Doctor F. B. Tibbals, 1212 Kresge Building, Detroit, Michigan.

Editorials

WHAT IS A CHIROPRACTIC? SOME LEGAL DEFINITIONS OF CHIROPRACTIC

The Kansas chiropractor was the first to be described by statute. He had, and apparently has, nothing more to do with the backbone than with any other part of the body, but is nothing more nor less than an osteopath. The Kansas act of 1913 provides that, "Any chiropractor who has complied with the provisions of this act may adjust by hand any displaced tissue of any kind or nature * * * *."

In the Arkansas act of 1915 we catch a glimpse of the backbone, and that is all: "Said license, when granted by said board of chiropractic examiners shall entitle the holder thereof to adjust by hand the displaced segments of the vertebral column and *any displaced tissue in any manner related thereto* * * * *."

The North Dakota law of 1915 gives the chiropractor full play over the entire body: "Any chiropractor who has complied with the provisions of this act may adjust *any displaced tissue of any kind or nature* * * * *."

The Oregon law of 1915 also gave the chiropractor the right to roam over the entire body, so long as he limited himself to "the bony framework," although it laid special stress on the vertebrae: "Chiropractic is defined as that system of adjusting the articulations *of the bony framework of the body,* especially the asymmetries of the vertebrae * * *."

The Colorado act of 1916 brings in two new features, palpation and nerve tracings: "The practice of chiropractic as used in this act is hereby defined to mean the treatment of disease or a morbid condition of human beings by palpation, nerve tracings and adjustment of the vertebrae by hand."

The North Carolina act of 1917, after recognizing the spine as the backbone of chiropractic, seems to give full play to the chiropractor:

> "Chiropractic is hereby defined to be the science of adjusting the cause of disease by realigning the 24 movable vertebrae of the spine, releasing pressure on the nerves radiating from the spine to all parts of the body, and allowing the nerves to carry their full quota of health current (nerve energy) from the brain to all parts of the body. * * * *
>
> "Any person obtaining a license from the said board of chiropractic examiners shall have the right to practice that science known as chiropractic, *in accordance with the method, thought, and practice of chiropractors,* but shall not prescribe for or administer to any person any medicine or drugs, nor practice osteopathy or surgery."

The Connecticut act of 1918 provides: "For the purpose of this chapter, the practice of chiropractic shall be understood to be the adjustment by hand of any or all of the articulations of the human vertebral column."

The people of Montana, through the initiative, defined Montana chiropractic in 1918 as follows: "Chiropractic is the science that teaches that disease results from anatomic disrelation, and teaches the art of restoring anatomic relation by a process of adjusting by the use of the hand. No other means of securing health shall be construed to be chiropractic except the application of the inherent qualities at the time in the patient or appertaining to the chiropractor.

But the Idaho definition of 1918 is broader: "Any licentiate under this act may adjust any displaced segment of the vertebral column *or any tissue related thereto* * * *."

Minnesota, in 1919, still gave the chiropractor leeway: "For the purpose of this act, chiropractic is hereby defined as being the science of adjusting any *abnormal articulation of the human body,* especially those of the spinal column * * * *."

Florida in 1919 apparently had no reason to believe that chiropractors were limiting themselves to the backbone, for it enacted: "Any chiropractor who has complied with the provisions of this act may adjust by hand *any displaced tissue of any kind or nature or otherwise practice according to the tenets of his or her respective school.* * * * *."

The Nebraska act of 1919 limits the chiropractor to the backbone: "Any chiropractor

who has complied with the provisions of this article and obtained a license may adjust by hand any articulation of the spine * * * *."

The Vermont act of 1919 does not define chiropractic.

The statute enacted by the state of Washington in 1918 provides that a licensed chiropractor "may adjust by hand any articulations of the spine * * * *."

The Maryland act of 1920 limits the activities of the chiropractor to adjustments by hand of the articulations of the spinal column.

The New Jersey definition of 1920, repealed by the act of 1921, is worth quoting in full:

"The term chiropractic, when used in this act, shall be construed to mean and be the name given to the study and application of a universal philosophy of biology, theology, theosophy, health, disease, death, the science of the cause of disease and art of permitting the restoration of the triune relationships between all attributes necessary to normal composite forms, to harmonious quantities and qualities by placing in juxtoposition the abnormal concrete positions of definite mechanical portions with each other by hand, thus correcting all subluxations of the articulations of the spinal column, for the purpose of permitting the recreation of all normal cyclic currents through nerves that were formally not permitted to be transmitted, through impingement, but have now assumed their normal size and capacity.

Arizona, however, was not seduced by the glories of the New Jersey definition and stuck to the backbone; in its act of 1921 it provided: "Any chiropractor who has complied with the provisions of this act may adjust by hand any articulations of the spinal column * * * *."

The Georgia act of the same year, 1921, is a type of act that has been recently sought in other jurisdictions, intended to allow chiropractors to expand their fields of activity, so long as they do not prescribe or administer medicine, perform surgery, practice obstetrics, or osteopathy. The act authorizes the Georgia chiropractor to "adjust patients in Georgia, according to specific chiropractic methods." There is no reference to the backbone and no prohibition on the use of hydrotherapy, electrotherapy, thermotherapy, etc.

The Iowa act of 1921 does not limit the chiropractor to the backbone, but provides: "The practice of chiropractic shall be deemed to be the adjustment by hand of the articulations of the spine and *other incidental adjustments* according to chiropractic methods."

The New Hampshire act of 1921 does not limit the chiropractor to the backbone; it gives him jurisdiction over the sacro-iliac articulations. It reads: "Chiropractic is herein defined to be the science of adjusting the cause of disease by realigning by hand the 24 movable vertebrae of the spinal column or misalignments of the sacro-iliac articulation, * * * *"

The New Mexico act of 1921 contains interesting evidence of what the chiropractors will do when they get a chance. It seems effectually to dispose of the pretentions of the chiropractor that the chiropractic school attributes all illness to spinal displacements and believes that every human ailment can be cured by replacements. The New Mexico definition is:

"Said license, when granted by said board of chiropractic examiners, shall entitle the holder thereof to diagnose and treat diseases, injuries, deformities or other physical or mental conditions, *by the use of any or all methods as herein provided,* such as palpating, diagnosing, adjusting and treating diseases, injuries and defects of human beings by the application of manipulative manual and mechanical means, including all natural agencies imbued with the healing act, such as food, water, heat, cold, electricity, vacuum cupping and drugless appliances, without the use of drugs or what are commonly known as medicinal preparations or in any manner severing or penetrating any of the tissues of the human body known as surgery * * * *."

Section 4, *chap.* 110, *laws* 1921.

Probably the Oklahoma act of 1921 means the same thing as the New Mexico act just set forth; at any rate, one is as sensible as the other. The Oklahoma act provides: "Said license when granted by said board of chiropractic examiners, shall entitle the holder thereof to practice the science of chiropractic, herein defined to be as follows: chiropractic is hereby defined to be the science that teaches health in anatomic relation and disease or abnormality in anatomic disrelation, and included hygienic and sanitary measures incident thereto."

The South Dakota act of 1921 sticks closely to the chiropractic backbone: "Chiropractic is hereby defined to be the adjustment by hand of the articulations of the human spine and *other incidental adjustments* according to the science of chiropractic."

The California act, which became a law under the initiative in 1922, is one of the forward looking acts that seeks to vest in the chiropractors themselves the right to determine from year to year what chiropractic is. The license of the chiropractor, the law provides, "shall authorize the holder thereof to practice chiropractic in the state of California *as taught in chiropractic schools or colleges;* and, also, *to use all necessary mechanical, hygienic and sanitary measures incident to the care of the body,* but shall not authorize the practice of medicine, surgery, osteopathy, dentistry or optometry, nor the use of any drug or medicine now or hereafter included in materia medica."

The same adroit effort to make the chiropractic schools of the country arbiters of what the chiropractors of the country may lawfully do crops out in the Maine act of 1923 as follows:

"Such certificate shall entitle the person to whom it is granted to practice chiropractic in any county

in this state, in all its branches *as taught and practiced by the recognized schools and colleges of chiropractic,* but it shall not authorize the holder to practice obstetrics *so far as the same relates to parturition,* nor to administer drugs or perform surgical operations *with the use of instruments except as now allowed by statute,* provided, however, that nothing in this act shall be construed to prohibit any legally registered *doctor* of chiropractic in this state from practicing surgery after having passed a satisfactory examination therein before the state board of medical examiners."

The Tennessee act of 1923 limits the chiropractor to the backbone: "Chiropractic is defined as the science of palpating, analyzing, and adjusting the articulations of the human spinal column by hand." * * *

W. C. Woodward.

(Ye Editor believes that the proper and simple definition of chiropractic is "BUNK.")

ANNUAL CLINIC OF THE DETROIT COLLEGE OF MEDICINE AND SURGERY

One of the most outstanding programs ever arranged for the annual clinic week given by the Detroit College of Medicine and Surgery has been completed. The opening day is Monday, June 15th, 1925.

Men of international reputation will address the meetings or give clinics in six of the leading hospitals of Detroit. Each of the hospitals will take active parts in the program, their staffs having arranged a varied number of clinics and demonstrations. Class reunions will take place; all classes ending in "0" or "5". Demonstrations will be given at the college building Wednesday, June 17th. Dr. J. B. Deaver of Philadelphia, will address the graduating class at the commencement exercises Thursday evening, June 18th. A record-breaking registration is anticipated.

Dr. Roger S. Morris of Cincinnati, will give a clinic on Medicine; Dr. J. B. Deaver of Philadelphia, Surgery; Dr. F. R. Rackemann, Boston, Asthma and Hay Fever; Dr. B. C. Hirst, Philadelphia, Gynecology; and Dr. J. B. Squier, New York, on Urology.

On Wednesday evening there will be a subscription dinner, to be followed by annual meeting of the Alumni Association.

Following is the program for the week:

At Grace Hospital—Monday, June 15th, 1925.
In charge of Dr. H. R. Carstens.
9 to 11 a. m.—Staff Clinics.
11 to 1 p. m.—"Asthma and Hay Fever"—Dr. Francis M. Rackemann, Boston.
1:15 p. m.—Luncheon, guests of Grace Hospital.
8 p. m.—Wayne County Medical Society Building. Medical paper by Dr. Roger S. Morris, Cincinnati.
At Receiving Hospital, Tuesday, June 16th, 1925.
In charge of Dr. I. G. Downer.
9 to 11 a. m.—Staff Clinics.
11 to 1 p. m.—Medical Clinic—Dr. Roger S. Morris, Professor of Medicine, University of Cincinnati.
1:15 p. m.—Luncheon, guests of Receiving Hospital.
In the evening, class reunions—all classes ending in "0" or "5".
At Providence Hospital, Wednesday, June 17, 1925.
In charge of Dr. Wm. P. Woodworth.
9 to 11 a. m.—Staff Clinics.
11 to 1 p. m.—Gynecological Clinic—Dr. Barton Cook Hirst, Philadelphia.
At the Detroit College of Medicine and Surgery.
2 to 4 p. m.—Demonstrations.
6 p. m.—Subscription Dinner, followed by the Annual Meeting at 8 p. m.
At Harper Hospital, Thursday, June 18th, 1925.
In charge of Dr. R. H. Moehlig.
9 to 11 a. m.—Staff Clinics.
11 to 1 p. m.—Surgical Clinic—Dr. J. B. Deaver, Philadelphia.
1 p. m.—Luncheon, guests of Harper Hospital.
At Herman Kiefer Hospital.
2 to 4 p. m.—Clinics.
8 p. m.—Graduation exercises of Detroit College of Medicine and Surgery. Graduating address by Dr. J. B. Deaver.
At St. Mary's Hospital, Friday, June 19th, 1925.
In charge of Dr. George C. Burr.
9 to 11 a. m.—Staff Clinics.
11 to 1 p. m.—Urological Clinic—Dr. J. Bentley Squier, New York.

AUGUST VON WASSERMANN

By the

United States Public Health Service

The death of Professor August von Wassermann on March 16, 1925, has deprived the medical world of one of its ablest investigators and the human race of a benefactor. Through his continued studies he has made several lasting contributions to the body of knowledge basic to general race betterment.

Wassermann was born February 21, 1866, at Bamberg, Bavaria. His father was a royal banker who gave his son the opportunity to gain a sound general and professional education. Wassermann studied medicine at the universities of Erlangen, Munich, Vienna and Strassburg, receiving his degree from the last named institution in 1888. He then became assistant for infectious diseases at the Koch Institute of the Charite at Berlin, gaining the title of professor in 1898. In 1901 Wassermann was given an appointment to the University of Berlin as Professor Extra-Ordinary (Privatdozent), a position carrying with it no emoluments outside of the opportunity to teach and experiment in the university medical school and its laboratories. Within a year his unselfish devotion and keen interest in the science of medicine brought him a full professorship. In 1906 he assumed the duties as head of the Division for Experimental Therapy and Serum Research at the Royal Institute for Infectious Diseases at Berlin. In 1913 he added to his duties those of director of the newly founded Kaiser Wilhelm Institute at Dahlem, near Berlin, an institute for experimental therapeutics.

As a mark of appreciation of beneficial public service the title of Secret Councillor (Geheimrat) was conferred upon Wassermann in

1907; he was also awarded the Japanese Order of the Holy Treasury, the Turkish Order of Ozman, the Spanish Order of Elizabeth the Catholic, and the Reichs Adler Order.

Professor Wassermann was a prolific contributor to medical literature. As an introduction to Ebstein and Schwalbe's Handbook of Practical Medicine he has written an able discussion concerning general studies on infectious diseases, especially influenza. He was also a regular contributor to the Eulenburg Encyclopedia, writing on immunity and serum therapy. He published many articles on newer subjects, such as hemolysin and precipitin. His best known works are contained in the Handbook of Pathological Micro-organisms, which he published in collaboration with Kolle.

Wassermann made a far-reaching and important contribution to forensic medicine by "his precipitin reaction which distinguishes the blood of men and animals by differentiating albumin bodies contained therein."

His greatest discovery, the complement fixation test in syphilis, was announced in 1906. This, the so-called "Wassermann Test," is an application to syphilis of a general reaction discovered by Bordet and Gengou.

An appreciation of the vast importance of the use of the Wassermann test as an aid in the diagnosis and treatment of syphilis may be gleaned from data collected and compiled by the Division of Venereal Diseases of the United States Public Health Service. The 165 laboratories of State Health Departments and State Institutions, scattered throughout every state in the union and included in this investigation, administered 990,130 Wassermann tests in 1923. This figure, when reduced to more evident terms, means that these 165 state laboratories have given one Wassermann test per every 106 people in the United States. The importance of the Wassermann test is further enhanced by the fact that these figures do not include many Wassermann tests made by private laboratories.

Though Wassermann's name has been connected with important researches dealing with the problems of cancer and tuberculosis, he has enshrined his name in medical annals by virtue of his work in the diagnosis and treatment of syphilis. Wassermann, a distinguished pupil of Koch and Ehrlich, has earned the name of a great benefactor of humanity.

MICHIGAL HOSPITALS

The A. M. A. Council on Medical Education and Hospitals has prepared some very pertinent statistics on hospitals and internes covering 1924. We are imparting the Michigan figures in this report:

Michigan has 73 hospitals with 3814 beds and open staffs. There are 33 hospitals with 3,468 beds that have closed staffs. There are 78 hospitals with 4,889 beds that do not admit having either open or closed staffs. Our state hospital resources are 184 hospitals with 12,171 beds.

Michigan has a gross total of 252 hospitals varying in size of less than ten beds to 20 with over 300 beds and a grand total of 26,770 beds. There are 7,370 hospitals in the United States with a total bed capacity of 813,926. In 1923, 64.1 per cent of these beds were occupied. Michigan has 63 counties that have hospital facilities and 20 counties without hospitals. These coutnies without hospitals are in sparcely settled districts of the upper penninsula and the thumb and upper area of the lower penninsula. In these counties without hospitals there are 189 physicians and a population of 235,615 for the twenty counties.

Interne service is an important educational feature. Experience has demonstrated the efficient interne service calls for one interne for every 24 patients. Michigan hospitals are utilizing the services of 333 internes, of which number 108 are graduates of Michigan schools.

These are cold figures, but on reflection furnish important factors that demonstrate the trend of modern practice as well as the role that hospital accommodations wield in our professional and public life. The hospital has been developed and extended by the demands of the public and the advancements of our science. As we as a profession have progressed, so, too, must our hospitals advance. Standards are being created, administration efficiency is being perfected, morbidity and mortality rates are being lowered and service is being elevated. We have progressed, but there is still much to be done. Our hope is that the profession will recognize this tremendous problem and exercise a directing as well as controlling influence upon the hospitals of Michigan.

ORIGINAL ARTICLES

The Journal is dependent upon our members for the contribution of original articles. From a scientific viewpoint the Journal will be just as valuable, just as useful and just as interesting as our members make it by the articles that they contribute.

If you receive an issue, peruse it and then toss it aside, either as uninteresting, or of little help to you, whose fault is it? Certainly not the Publication Committee's or the Editor's for they cannot supply the original scientific articles from their own pens for every issue. The fault must and will lie at the door of our members. The type, field, subject-matter and quality of the Journal and its scientific standing in the field of medical literature is and will ever be determined by the contributions of the

medical men of Michigan. That is a definite obligation that rests upon our members. It is a matter that should be one of interest and pride and it is for the purpose of re-awakening that interest and pride that we are dwelling upon the subject in this editorial.

The Publication Committee and the Editor want scientific, original articles that reflect the work, thought, progress and achievements of the medical men of Michigan. We desire them to be scientific in full degree, we also want them to embrace practicality. We want them to cover the entire field of medicine in theory, research, diagnosis, experiences, results and to reflect that which characterizes modern scientific medicine.

We want these articles to eminate from those who are affiliated with some of our well known hospitals. Members of the staffs of University, Harper, Grace, Providence, Highland, Hurley, Ford, Saginaw, Battle Creek, Kalamazoo, Grand Rapids, Bay City, Calumet, Soo Hospitals—yes, all hospitals are invited to contribute such original articles. To other men, not associated with hospitals, who are in the smaller communities, possibly in the "wilds," if we still have such places, are also urged and invited to send in their experiences, medical observations and practices. We are not soliciting thesis, quotations or collections of reviews. What is desired is a series of compact, to the point papers that contain worth-while, helpful data and information. We feel that some of our hospitals could well make definite commitment, to send in for publication, a certain number of original articles during each year. Staff meetings are held, papers are read at those meetings, let someone be delegated to select from those papers the ones that represent scientific value and which will not only be of interest to all our readers, but which will also reflect the scientific activities of the state.

The Publication Committee and the Editor desire the Journal to be of assistance to every reader. We want to make it bigger and better. We want you, reader, to find in it the help that you are looking for. It is to that end that we solicit the contribution of original articles. We can use ten or twelve in each issue and each article submitted will be made to appear at the earliest possible date. Your assistance will aid us to send you a Journal that will evoke your personal interest and give you cause for just pride.

AS OTHERS SEE US

The following is lifted from "The Nation's Health":

The Michigan Public Health Education program was formally organized in 1922 under the direction of the Joint Committee on Public Health Education. This committee was formed on the initiative of the Michigan State Medical Society, and its undertakings have been based upon the belief that the best results would be obtained by the closest and most cordial cooperation between the medical society and the University of Michigan in matters pertaining to education to the broad field of public health. Upon this basis the original Joint Committee has associated itself with the Michigan Department of Health, Detroit College of Medicine and Surgery, Michigan State Dental Society, Michigan Tuberculosis Association, Michigan State Nurses' Association, the Michigan State Conference of Social Work, and the Wayne County Committee on Education, of Detroit.

The work that the Joint Committee has set itself to do is primarily educational and is based upon the proposition that in a democracy public health is a public concern. Sound public policy and private conduct will result from sound public and private opinion and these will come only by getting to the men and women of the community an adequate knowledge of ascertained facts in regard to health and disease. To further these purposes the Joint Committee is prepared to supply speakers of recognized authority and known integrity equipped to present to the public the facts concerning a great variety of conditions important to public health.

As the Joint Committee is concerned only with education, this committee will rely upon the convincing power of the truth and will not permit attacks upon those who hold other views.

It is the desire of the Joint Committee on Public Education to furnish speakers free of charge to all organizations of the state interested in public health education. The Joint Committee, through the extension division of the University of Michigan, is prepared to cooperate with chambers of commerce, luncheon clubs, superintendents of schools, parent-teacher associations, granges, farmers' clubs, literary societies, women's clubs, churches and such other organizations as may be interested in general or local health problems.

These health lectures are given free to the public. In other words, so far as local communities are concerned, this health service is furnished without charge, with the understanding that the lectures shall be free to the public and advertised as such. The only obligation resting upon the community receiving the service is that the local committee shall provide a suitable hall and shall take care of the distribution of advertising material, which is furnished by the extension division.

The health education work during the first year, 1922-23, was in a measure of an experimental nature. The number of speakers available was limited and the plans for getting these speakers in contact with the public were merely tentative. During 1923-24, however, the work was well under way. The records tabulated

make clear that there is an unusual interest on the part of the people of the state in lectures of this sort. The attendance during the past year shows an increase of 160 per cent over that of the preceding year.

The following is a brief summary of the report of the year's work, as submitted to the Joint Committee:

HEALTH LECTURES, 1923-24

Total number of health lectures assigned	271
Average attendance per lecture	289
Total attendance upon health lectures	79,000
Increase in health lectures assigned over that of the preceding year	48%
Increase in attendance upon health lectures over that of the preceding year	160%

The outlook for a very much extended program of health lectures for the present year, 1924-25, is very encouraging. The staff of health lecturers have been very largely increased, and the number of calls for this service increasingly urgent. One of the great difficulties which presents itself so far as the administration of the work is concerned is to secure speakers enough to meet the demand. At present something like 120 speakers are listed, but there should be in Michigan from 300 to 500 speakers to enable the extension division to meet the calls from every part of the state for lectures of this sort.

The Michigan health education program is in some respects unique, according to Alice L. Lake, who supplied the information given. Inquiries from all parts of the United States and from Canada have been received by the extension division with reference to the Michigan program. Judging by the correspondence received from other parts of the country, the time is not far distant when every state will inaugurate some sort of health education program, modeled in whole or in part after the Michigan plan.

MINUTES OF THE MEETING OF THE JOINT COMMITTEE ON PUBLIC HEALTH EDUCATION

Held at Grand Rapids, April 16, 1925

Present: Doctors Dodge, Biddle, Jackson, Warnshuis, Huber, Henderson, Gibson, Werle, and Miss Annie Coleman.

Dr. Dodge, temporary Chairman.

1. Reading of the minutes of the Battle Creek meeting on January 14, 1925.

2. Election of Chairman to fill the place made vacant by the death of Dr. Burton. Dr. Cabot was elected as Chairman of the Joint Committee for one year.

3. Report of the Committee consisting of Doctors Dodge, Cabot and Warnshuis, relative to the admission of the Michigan section of the American Red Cross to membership in the Joint Committee. Action deferred until next meeting.

4. Report of the Committee, consisting of Dr. Olin, Mr. Werle and Dr. Sundwall, relative to the preparation of lecture outlines on Tuberculosis. In the absence of Dr. Olin and Dr. Sundwall, Mr. Werle explained briefly the nature of the reports and outlines which his organization was prepared to furnish. It was moved and carried that these outlines be distributed through the Extension Division to those members of the speaking staff whose subjects touched upon Tuberculosis, provided the outlines meet with the approval of Dr. Olin and Dr. Sundwall.

5. Report of the Secretary relative to additional names and subjects for the new bulletin. The list submitted was approved. It was moved and carried that other names and subjects which may come in between the time of this meeting and the date of the publication of the bulletin, shall be subject to the approval of the Secretary.

6. Report of Dr. Cabot relative to the organization and objects of the American Association for Medical Progress, as represented by Mr. Benjamin Gruenberg, Secretary. No definite action was taken.

7. It was moved and carried that a Committee, consisting of Doctors Dodge, Cabot and Warnshuis, be appointed to make a study of the relation of the nursing service of the state to the health service and to report at the next meeting. Moved and carried that this report be made a special order of business for the next meeting, with the understanding that the Committee submit a preliminary written report of their findings to all members of the Joint Committee before October 6, 1925.

8. A report was made by Dr. Gibson, representing the State Dental Society, to the effect that the State Dental Society had appointed Dr. Chalmers J. Lyons of Ann Arbor to represent the State Dental Society on the Joint Committee for a period of three years.

9. Moved and carried that a Committee be appointed by the Chairman to report on the subject of publicity as relating to health matters. Dr. Cabot appointed Dr. Jackson, Mr. Werle and Dr. Biddle as members of the Publicity Committee.

10. It was moved and carried that a Committee be appointed to consider the question of lecture outlines and literature and bibliographies which might be of use to members of the health lecture satff. The Chairman appointed Doctors Henderson, Huber and Sundwall to act on this Committee.

11. It was moved and carried that Dr. Warnshuis be requested to ascertain in what way the Joint Committee may co-operate with the Gorgas Memorial Committee of the A. M. A. especially as relating to the distribution of health literature.

12. It was agreed that the next meeting of

the Joint Committee shall be held in Ann Arbor, Michigan Union, Tuesday, October 6, noon, eastern time.

The meeting adjourned.

W. D. Henderson, Secretary.

THE SPIRIT OF ORGANIZED EFFORT*

The plan, whereby in 1902 our medical reorganization was made to consist of County, State and American Medical Association, must be conceded as not only just but democratic. It affords an interlocking relationship that unites the constituent units an correlates their activities, while at the same time amalgamates and organizes into one large body the profession of the nation. The experiences of the past twenty-three years has justified the wisdom of that plan and has created a solidarity that is so essential to achievement and progress.

As times change, so too, must we change. As new events create new conditions, we in turn must adapt ourselves to new relationships and assume new or extended obligations. Thus is the spirit of organized effort determined and developed. If we acept those obligations, acquit ourselves in their performance then do we meet up to the modern spirit and progress is recorded. Should we fail to so do, retrogression ensues, the organization becomes dormant, and unless aroused, speedily disintegrates and ceases to function.

It becomes imperative then that we, who have been placed in official positions, should pause from time to time, take stock and confer in order that we may determine whether we are causing our official acts to conform to the spirit of present day organized effort. In doing so it is well and essential that we should formulate new movements and activities that progress may be evidenced. That is the purpose of this Conference, which you as County Secretaries and Councilors are attending. Without further introduction or coment I shall proceed to enumerate, for your consideration, those purposes and programs that characterize the present day spirit of organized medical effort.

The first fundamental of medical organization was and still is, the providing of a place and time where members might meet, discuss, relate and appraise medical knowledge, scientific discoveries, experiences and practice. All to the one end for collective and individual improvement and professional ability. That feature embraces the scientific programs of our County Society Meetings. Compliance with this primal fundamental is as essential today as it was twenty-five years ago. It follows therefore that each component unit must constantly exert itself to maintain a high standard for its medical programs in order that your members may ever be abreast of scientific progress. It is the function of the County Unit to keep the ruts of habit filled up and engender amongst local members the desire to remain in the van of modern practice. I desire to urge an increasing alertness to this basic object and advise increasing attention to the formulating of your scientific program. Plan them far in advance with careful thought and consideration of topics, speakers and discussants.

2. As individuals, as a profession, as an organization, the progress of our day no longer permits us to live unto ourselves and within ourselves. Our scientific discoveries and advancement has laid in store for us a vast fund of knowledge. Knowledge which if imparted to the public would go far and do much for the efficiency, physical welfare, happiness and longevity of all humankind. This fund of knowledge, this civic resource is not ours to hold and conceal for selfish purposes.

If we judiciously disseminate it we will retain the mastery that rightly belongs to the profession. Unless we so disseminate it, society will demand its receipt from other sources, that are bound to be created and when it does we shall have forfeited our mastery and our profession of today will be subordinated to higher authorities. That eventuality is certain to occur should we permit ourselves to become so neglegent and irresponsible.

It therefore follows that the second important spirit that should motivate medical organized effort of today is the obligation we have to educate the public as to the truths and benefits of modern scientific medicine. As a State Society we have undertaken this duty as witnessed by our Joint Committee on Public Health Education. Certain ends have been attained. In certain counties splendid progress has been made. A basis has been thoughtfully constructed. As a State Organization, embracing the entire state, the attitude is still characterized with far too much indifference and far too little achievement. A relatively few County Societies concern themselves with this movement, more societies are indifferent and accord scant interest or support. The need presses, and I stress the imperativeness of that need, for every County unit to immediately rally to the support of this work and to become aggressively active. Speakers are available, assistance from the Committee is at hand, the people are alert and eager. County Society sponsorship through an active working Committee and well planned,, followed through effort must become the concern and duty of each County Medical Soiety in order that the public may be enlightened as to medical scientific truths and our public obligations remain unchallenged. As Secretaries it becomes your duty to cause your local socety to awaken and to undertake this work with intensified avidity. It is our outstanding, most essential activity. I sincerely

hope you will return home fully imbued to institute this work in your County.

3. The third essential of the modern spirit of organized medical effort is need for providing, in a systematized manner, channels and methods for the conservation of human health. I refrain from commenting upon the needs; the "why fors" and bluntly mention Periodic Physical Examinations for Infants and Adults. To establish the principles by which such examinations become imperative, to formulate an acceptable examination procedure, to standardize evaluations and to bring about every doctor's enlistment in this field of service is a responsibility that modern events and education has placed on medical societies and the profession. The subject is receiving the attention of our American Medical Association, and an examination blank and manual is in course of preparation for individual usage. Certain County Societies in the East, Middle and far West have undertaken the initiative. We of Michigan, must no longer delay in instituting this demand of our modern day.

I have thus briefly and superficially cited three outstanding activities that call for concerted effort on our part. They by no means embrace all that is included in our organizational program. It would consume far too much time were I to enumerate in essential only medical legislative education, hospital and nursing standards, membership personnel, community practices, public clinics, our inter-relationships, post-graduate instruction, and several allied features which properly, but far too often neglected, fall within our scope of organizational objects and duties.

The general appraisal and criticism appears to be justified that we are in the midst of a critical period in our profession's history. We have drifted and been self centered giving little heed to the forces that were amassing around us. We have leaned overly far towards the money pots of Midas and the golden calf bids well to supplant our cherished ideals. We need not hope for any Moses to lead us out from our professional wilderness of today. It is only by the directing guidance of you who are the most important officers of our Societies that we can hope to establish and benefit by the powerful, though now somewhat dormant forces that lie within the scope of our organized medical units. To do so entails time, labor, thought, effort and zeal. You must give much and receive little or no personal reward. You may confidently expect, if you are active, much criticism, cussing and enmity. Oft times you will struggle alone, depressed and inclined to toss up the sponge. If you do, of course you fail. If you persist with fixed determination you will win and the reward will be the personal knowledge and satisfaction that you have labored in a most worthy cause.

I am not seeking to arouse false or transient enthusiasm. I am earnestly pleading to awaken a consciousness that will convince each of you that heavy burdens rest upon you as County Secretaries. I am hopeful that you will depart from this conference with a fixed, unswerving purpose and determination to return to your County Society and promptly undertake to:

1. Bring about better scientific programs for your regular meetings.
2. Foster, inspire and institute with the aid of selected members, an increasing number of public meetings for the education of the public in regard to scientific medicine.
3. Adopt and develop a plan of periodic physical examinations.
4. To join with and assume directing control of all public health work, clinics and hospitals in so far as medicine is involved.
5. To enlist and interest all the eligible members of the profession in your County in the work of your County Society.
6. To cause your Society to enhance the type of medical service in your community.
7. To re-awaken the spirit of organized effort for the attainment of the mastery and honor of our profession.
8. To beget professional fellowship.

These, gentlemen, embrace the essentials of the present day spirit of organized medical effort. For its accomplishment and for your assistance you will find the Council and Officers of your State Society ever ready to respond, in so far as it is given to them, to your requests for assistance. Michigan stands foremost in National Medical progress. It remains for each County Society, and each County Secretary to determine if we are to be relegated to the rear ranks. There are peculiar conditions and obstacles in each County. They can be surmounted if you but fixedly determine to do so. May the discussion today assist and inspire you to that type of service.

Editorial Comments

From Wayne County Bulletin

The visit paid us recently by Dr. F. C. Warnshuis, the Secretary of our State Society, will do much to foster a better spirit of understanding between our Society and the State organization.

The relationship between the Wayne County and the State Society, while it has been and will continue to be a harmonious one, still has somewhat of passiveness in it. This is due perhaps to the size and activity attained by our organization, pride in which some of us feel that we can be independent of the State Society and that bolting from that organization would be easily accomplished in the event of any displeasure being incurred. That such a misapplication of power would wreak nothing but havoc can be readily appreciated by all and would therefore be wholly undesirable; but a combination of forces would do much towards the good of all of us.

The visit of Dr. Warnshuis was made primarily to determine just what the State Society could do for Wayne County in the fulfillment of its duty to all county societies and while nothing very definite was decided upon, a feeling of better understanding was created between the two organizations.

It is hoped that the State Secretary will be invited

by our Council more often than in the past in order that this relationship may be more firmly established along thoroughly co-operative and friendly lines.

The American Medical Association, through its Council on Medical Education and Hospitals, which handles the hospital work for the Association, has issued its 1925 revised list of hospitals approved for internships. The list is published in the Journal of the American Medical Association for March 28. It will also appear in the ninth edition of the American Medical Directory, besides being in separate pamphlet form. The list names 524 hospitals that are in position to furnish general internships, such as satisfy the medical colleges and state boards, as well as meet the almost universal demand of medical graduates for at least a year's general hospital experience, practice or specialization.

There were reported 5,059 interns, of whom 3,825 are in the 524 approved hospitals, and 1,234 interns in 2,696 non-approved hospitals. This total of 5,059 interns compares favorably with the 3,669 interns reported in the census of one year ago, the increase being 1,390, or 37.9 per cent. In fact, there are 156 more interns now in approved hospitals than there were in all hospitals two years ago.

When the hospitals began to feel the shortage of interns about a decade ago, they quite naturally resorted to pecuniary appeals and offered salaries, usually ranging from $25 to $100 per month and maintenance. Now the appeal must be made on the basis of educational opportunities offered, rather than financial remuneration. There are still a number of hospitals that pay their interns—and there can be no objection to giving interns some financial help, but hospitals which secure the best interns and most easily, are those whose staffs are known to furnish the best educational opportunities, salary or no salary. The Council on Medical Education and Hospitals also publishes a list of the hospitals that provide approved residencies in specialties for those who have already had a general internship or experience.

By furnishing these lists the Council serves not only those who are seeking an internship or residency, it also contributes much to the good of the profession and the public by encouraging a broad general foundation, both for general practice and for specialization.

Remember, and note on your calendar, that the date for our annual meeting is September 8, 9 and 10th. The place is Muskegon. An impressive and interesting innovation is planned for this year's program. It will be announced in due course. Just now we want you to reserve these dates and plan to attend.

We haven't as a rule, utilized space for "jokes" except to once in a great while reprint an effusion from the "Tonics and Sedatives" grist. But it's spring; maybe you are feeling a little frisky—at any rate, elsewhere, as a filler in this issue you will find a few that we recently ran across.

When some women come to you for advice, or information, they seem to feel, that in order to show you they are interested in what you are trying to tell them, they must interrupt you every half minute and politely call you a liar, by saying—"Zatso?" —"You don't tell me,"—"You can't mean it,"—"Really," and "Is it possible?" Then you feel like saying, "Oh! whatstheuse."

Our Medico-Legal Defense Committee, through it's efficient chairman, is rendering to our members valuable service. The work is difficult, with many complicated details and points of law to be observed. One outstanding difficulty that is frequently encountered is damaging "talkativeness" on the part of the doctor when he is threatened with a suit or served with a summons. Statements made at that time are frequently used at the trial and are detrimental. The advice is again tendered to keep quiet, say nothing and place the facts in our legal committee's hands. They will protect your every interest. Above all, do not talk or make any statement.

Your Editor does not desire to write all the editorials for The Journal. Our editorial columns are open to every member of the Society who desires to contribute. It is your opportunity to utilize this space for the imparting of your views, or for advancing constructive comments and criticisms. We urge that you make use of this space. We desire to have the editorial department reflect the profession's thoughts and views. We solicit and welcome your contributions. Please help us to make a better Journal.

Chiropractic legislation was also defeated in the New York legislature. Splendid work done by the organized profession of New York exposed the injustice of this type of favoritism and preying upon the health of the people. It would seem that the policy should be to vigorously prosecute these law violators who exercise a damaging influence upon health equally as great as does the "bootlegger."

The A. M. A. meeting in Atlantic City, the week of May 25th, should induce a goodly number of Michigan Fellows to attend. With ample hotel accommodations, satisfactory meeting places, a resort furnishing a variety of diverse ammusements and the fraternal spirit always manifested are apparent inducements and should serve to bring out a large attendance. Plan to attend for you will not regret it.

Wayne County Medical Society is composed of some 1,400 members. This almost is equivalent to being half of our state membership. These members in Wayne have most loyally met our increase in state dues. Certain reasons and plans were set forth as the basis for an increase in dues and extended activities were outlined. The Council has been actively engaged in advancing our organizational work and enhancing the value of membership. We have been greatly concerned as to how our State Society could be of renewed and increased value to Wayne County. The problem has been considered from many angles. Considerable correspondence has been had with the President and the Council of Wayne County. On March 30th, we had a conference with the Wayne County Council with a view of determining wherein we as a State Society could render service. It was recognized that the Wayne County Society holds splendid weekly meetings. It was further recognized that the Society is acquiting itself in a most commendable manner of its organizational obligations. Cognizance was also taken of the fact that by means of regular clinics, foundation lectures, instruction courses and special societies the medical men of Wayne are afforded excellent opportunities for scientific enlightenment. It seemed that any effort on the part of the State Society to add to this already crowded program would be of minor value. That is the present situation. The result of the conference, and that is what we desire to get over to all our members, was the expression of Wayne's Council set forth in these words: "The question is not what the State Society can do for Wayne, but rather, what more can Wayne County do for the State Society." That was a most loyal

expression, revealing in a broad, frank, unselfish manner, Wayne's interest in our State Society. We who are out in the state are most grateful for this fraternal spirit of brotherhood. In conjunction with the Program Committee it is purposed to participate in some of the weekly meetings of the Wayne Society. However, we salute the members of Wayne County and voice our thanks for their considerate attitude.

Chiropractic bills were defeated in the Indiana legislature. As soon as the public obtains information as to this cult's lobbying for recognition and seeks state endorsement for uneducated, unscientific individuals who desire to force their quackery upon the sick, their legislative machinations end in failure. Until the public is fully informed it remains the public duty of the medical profession to expose these cultists. That means that you, doctor, as an individual, must utilize every opportunity to pass out scientific facts to those with whom you come in contact.

County Secretaries are urged to again interview delinquent members and secure their re-instatement. Under ruling of the House of Delegates the names of all delinquents have been removed from our mailing list. They no longer receive The Journal and are without the medical-legal protection of our Defense Committee.

What has become of the doctor's gold-headed cane? The day was when no successful, active doctor was not the weilder of a cane whenever he appeared in public, or participated in community affairs . It was recognized as his mace, denoting his profession. It was more a part of his dress than the old silk tile. Somewhere within late years we have lost it. Will someone tell us how it came about? No, we are not endeavoring to resurrect it, or undertake the starting of a movement that will re-institute its usage. We are just a little curious and are inviting comments and recollections upon the "Doctor's Gold-Headed Cane." Will the muse inspire several and cause them to send us their thoughts for publication?

Among Our Letters

NOTE.—*This department is the open forum of our members. Your communications and discussions are welcomed. Anonymous communications cannot be accepted, though at times names may be omitted by the Editor. Personalities will not be printed and responsibility for opinions is not assumed. We invite your interest in this department. Address: The Editor, Journal, Michigan State Medical Society, Powers Theatre Bldg., Grand Rapids, Mich.*

A REPLY TO DR. SMITHIES

To the Editor:

There should be no need for me to point out that cool deliberation, statement of fact and close adherence to the scientific issues involved are, in this age of reason, the accepted methods for learning the truth.

The letter appearing in the Journal of the Michigan State Medical Society for April, 1925, over the name of Professor Smithies concerning my article, "A Diet for Peptic Ulcer" (Journal of the Michigan State Medical Society, January 1925), is therefore unusual and I shall answer it only insofar as scientific facts are involved.

In the first place (and I raise this issue apologetically) the name of the great Russian physiologist is spelled PAVLOV, and not Pawlaw, as Professor Smithies insists. To prove this point it is only necessary to refer to "The Work of the Digestive Glands" by Pavlov, (translated by W. H. Thompson, London, 1910), and also to the signature of Professor Pavlov in the biography by Professor Boldyreff (Bulletin of Battle Creek Sanitarium and Hospital Clinic, Battle Creek, Michigan, Vol. XIX No. 1, p. 5, December 1923).

Now I will proceed with the real questions at issue in my article. Smithies states, "In America we are to assume that egg excites gastric secretion." I need only refer Professor Smithies to Pavlov's book already quoted. On page 116 Pavlov states "Fluid egg white in Lobasov's hands showed no stimulating effect. If it be prevented, however, from escaping into the bowel a secretion begins after about seventy minutes." Bear in mind this is the unique property of fluid egg white, and not fluid whole egg, or whipped white, which Professor Smithies no doubt has in mind. Again (loc. cit.) "the absence of effect (secretion) in the earlier experiments, is no doubt due to the rapid passage of the egg white into the duodenum."

Smithies doubts that fats depress the acidity of the chyme. Pavlov (loc. cit. pp. 119, 121) states "no stimulating effect on the gastric glands was at any time obtained" from fats and "after a careful examination of all the facts, we are compelled to adhere to the hypothesis" that the lack of secretion following fat ingestion is due to "reflex inhibition of the secretory process." McLeod (Physiology and Biochemistry in Modern Medicine Mosby 1918) says on page 440, "Fat has a distinct inhibiting influence on the direct secretion of gastric juice." Further references (requested by Professor Smithies) are:

1. Lobasov (Ref. Arch. f. Verdauungskr. 1896.2.499).
2. Wolkowitch (ref. Arch. f. Verdauunskr. 1898.-4.380).
3. Lange (D. Arch. f. Kl. M. 1903.78.302).
4. Akimow-Peretz (Ref. Arch. f. Verdauungskr. 1898.4.397).
5. Backman (zschr. f. Kl. M. 1900.40.224).
6. E. Boas (Virch. Arch. 104.271).
7. V. Aldor (Zschr. f. Physick. Diat. Ther. 1.117).

All these authors have shown, experimenting on men and dogs, that ingestion of fat depresses the acidity of the stomach.

Professor Smithies also challenges the statement in my article that fats, upon reaching the duodenum close the pylorus and also denies that there is regurgitation of the duodenal contents into the stomach aiding the fixation of acid. The following extracts from Pavlov (loc. cit. page 188) may be more convincing: "It has been shown by the experiments of Lintvarev, that fats, fatty foods and soaps produce a reflex closure of the pylorus by contact with the duodenal mucous membrane, similar to that of acid and quite apart from a possible mechanical effect." This phenomenon has also been observed by Mering and Marbaix (La passage pylorique. La Cellule 1898. XIV. 251). Further, (Pavlov loc. cit. page 190). "Both the fatty acids and the hydrochloric acid produce their effects indirectly by causing a free secretion of bile, pancreatic juice and succus entericus, which neutralize them, whereupon the pylorus opens and the fluids pass into the stomach. The foregoing investigations were carried out by Boldyreff and have been confirmed by Dr. Arbekov." Many other authorities confirmed this, among which I would like to mention:

1. F. Best and Cohnheim "Ueber den Ruckfluss der Galle in den Magen bei Fettfutterung, (zschr. f. Physiol. Chemie 11910 LIX page 125).
2. B. P. Babkin and H. Ishikawa "Zur Frage ueber den Mechanismus der Wirkung des Fettes als secretorischen Erregers der Bauchspeicheldruse" (Pflug. Archiv. 1912. CXLVII 324).
3. Volhard (M. M. W. 1907.9).
4. S. Mintz (D. Arch. f. Kl.M. 1911.CIV. 481).

Professor Smithies has no right to claim priority in introducing the scientific ulcer diet. As seen from the letter of Professor Jarotzky to J. A. M. A. (February 28, 1925 Vol. 88, pp. 696) the Jarotzky diet was introduced in 1910 (Russky Wratch 1910 51. page 1979), while according to Smithies' own assertion, he introduced his regime in 1917.

Finally I have no intention of denying to Professor Smithies any credit for an ulcer treatment, which he may have independently evolved according to his own ideas of gastro-intestinal physiology. I still maintain, however, that Dr. Coleman's regime is the first attempt in this country to adapt the treatment of gastric ulcer to the laws of physiology.

That Professor Pavlov is the dean of modern gastro-intestinal physiologists, I think, even the most loyal American will not dispute.

A. Altshuler, M. D.
Detroit, Mich.

April 7, 1925.

The Journal of the Michigan State Medical Society:
Grand Rapids, Michigan.

Gentlemen:

The Mississippi Valley Conference on Tuberculosis will be held in Lansing, Michigan, on September 15th, 16th and 17th.

We would greatly appreciate having you mention the conference and the dates in your publications, in order that other organizations planning to hold conferences this fall will take the dates of the Mississippi Valley Conference on Tuberculosis into consideration.

We thank you for this courtesy.

Yours very truly,
Theo. J. Werle,
Executive Secretary.

X-RAY MACHINES AND RADIOS

Editor of The Journal of the Michigan State Medical Society,
Grand Rapids, Michigan.

You may recall that on December 24, 1924, you submitted an extract from a letter you had then recently received from Dr. Jesse O. Parker of Owosso, Michigan, relative to interference with the receiving and broadcasting of radio communications by the use of Dr. Parker's X-ray transformer. From Dr. Parker's letter it appeared that the Supervisor of Radio, Department of Commerce, Navigation Service, Detroit, Michigan, had interested himself in the situation to the extent of communicating with Dr. Parker concerning it. I therefore concluded that the best thing to do was to take the matter up directly with the Secretary of Commerce, Washington, and accordingly did so.

In the usual course of official business, my letter to the secretary was referred to the Bureau of Navigation, and under date of January 15, I received a reply from the Commissioner of Navigation. The gist of his letter was as follows:

"This office has received numerous complaints of interference with radio broadcast reception said to be caused by X-ray machines. Such complaints have been referred to the Radio Supervisors in the field offices for investigation.

"It has been reported that in some cases the interference has been eliminated by screening the room in which the apparatus was being used."

The Commissioner referred me for "more definite information as to the specific cases and the action taken, as well as the results accomplished," to nine Supervisors of radio, scattered through the United States, from Boston to San Francisco. It occurred to me, however, that if I should communicate with these several supervisors of radio I might merely stir up trouble, by calling their attention to the alleged interference and possibly making them feel that they ought to take some action regarding it. So I did not write to them. I suggested to the Commissioner of Navigation, however, that in view of the numerous complaints received by his office, the entire matter might with advantage be referred to the Bureau of Standards, which is a branch of the Department of Commerce, for investigation and report, "not only for the guidance of your office (the office of the Commissioner of Navigation) but for the information and guidance of users of X-ray apparatus generally." To that letter, the Commissioner replied, in part, as follows:

"The Secretary of Commerce has no control over interference with radio broadcast reception caused by electrical devices other than radio transmitters.

"Where interference is reported the source of which is unknown investigation sometimes develops that it is not produced by a radio transmitter, but from some other cause, in which case if the cause is located, our inspectors usually co-operate with the owners of the interfering device in an effort to remedy the condition. It sometimes happens that a remedy which is effective in one case does not remove the trouble in another."

The matter was, however, referred to the Bureau of Standards.

Under date of March 12, 1925, the Director of the Bureau of Standards submitted a succinct—and to some, I presume, lucid—statement of the situation, a copy of which I enclose. So far as we are concerned, the essential facts seem to be that interference to radio reception may be caused by X-ray apparatus, that there is frequently difficulty in preventing such interference, and that the Bureau of Standards has—

> "been deterred from embarking upon the comprehensive study which the situation really demands by the lack of funds requisite to undertaking a large amount of work additional to the numerous projects we have on hand. Solutions are gradually being worked out for the difficulties of this type in radio reception, but there is no doubt that such solutions could be greatly expedited by a scientific study of the causes and possible remedies for the several types of interference."

The situation may be summed up, it seems to me, as follows: (1) Electrical discharges from X-ray apparatus may interfere with radio broadcasting; (2) the causes of such interference are various, discovery of the cause in any particular case may be difficult, and the application of a remedy for the cause, if it be discovered, may be impracticable; (3) there is no definite solution of the difficulty in sight—primarily because resources for the scientific study of the causes and of possible remedies for the several types of interference are not available; and (4) the user of X-ray apparatus has as much right to "the air" as has the radio broadcaster, and is not under the control of the Secretary of Commerce.

A desire to keep the good-will of his fellow citizens, as well as the ordinary instincts of a physician, will undoubtedly lead the medical users of X-ray machines to co-operate to the limit in avoiding interference, so far as it may be avoidable. Apparently, however, they may insist on their rights, and use their X-ray machines for their professional ends, even though interference does occur. I am in doubt, however, as to the best course to pursue with respect to this matter, and therefore I submit it to you, with a view to having you consider it and advise me, or take such action as you deem proper. The doubt in my mind is as to whether it is best that the medical profession do nothing, allowing the situation to develop, and meeting difficulties if and when they arise, or better that the medical profession endeavor to stimulate research, either by the government, or by private agencies, possibly the makers of X-ray apparatus, to find means of avoiding the difficulty. Frankly, I am inclined to favor the waiting policy. I feel sure that the radio broadcasting interests will get busy and find a solution, if the situation becomes serious enough.

Wm. C. Woodward,
Executive Secretary,
Bureau of Legal Medicine and Legislation.

HARD LUCK IN MANISTEE

Editor The Journal of the Michigan State Medical Society.

Due to three doctors being sick and in the hospital, our March meeting was cancelled. At the time of our March meeting Doctors E. M. Keough and H. D. Robinson, both veteran practitioners, were at Mercy Hospital, Manistee, the one operated on for a ruptured appendix, the other for an obstruction of the bowel requiring resection of about 18 inches of gut. Since neither was a good surgical risk, we felt greatly worried. However, both made speedy and favorable progress for about 12 days. At that time Dr. Keough, after being up and about for two days, was found in his room unconscious, due to a cerebral hemorrhage. Dr. Robinson is back at work, but Dr. Keough is still very ill. We fear his paralysis will be permanent and our prognosis as to life is very guarded. The third physician "knocked out" was Dr. Lee Lewis, one of our E. E. N. & T. men. Dr. Lewis was in a Grand Rapids hospital preparing for a thyroidectomy, made necessary by a severe hyperthyroidism. Dr. Lewis is back in Manistee, but confined to his home. I would say that is a rather remarkable record for so small a Society as our own.

Our April meeting will be held Thursday, April 16th, with a supper at Mercy Hospital, followed by a lecture and demonstration by the courtesy of Fischer Company.

As to the meeting of County Secretaries, I am sure the Society will not care to pay my expenses, and with several men off the job, it is a little hard to get away. Obstetrics seems to be wished off on me, and with two cases scheduled for the 22nd, one for the 16th, and one for the 26th, I think I had better stay "close to home."

We have our regular monthly meetings every third Thursday. If the State Society is planning any more sectional clinical conferences, I wish to assure you that Manistee is far famed for its hospitality and we will be glad to act as hosts to such a meeting.

Regretting that I can't attend your meeting of Secretaries, and requesting that you send me a copy of the important proceedings of the meeting.

Very sincerely,
J. F. Goeke, M. D.
Secretary-Treasurer,
Manistee County Medical Society.

Editor of The Journal:

The Council of the Wayne County Medical Society recently authorized the publication of a daily Clinical Bulletin for Wayne County. The Bulletin will be published beginning May 1, 1925. As we wish to give the greatest publicity possible throughout the state so that visiting doctors in Detroit can obtain the Bulletin, I wonder if the State Journal would be kind enough to carry a notice of how the Bulletin carried throughout the year in a prominent place in the may be obtained in Detroit. If such a notice could be Journal it would be of great convenience for visitors in the city and we will make every effort to provide them with all the information possible regarding not only the daily program but also post-graduate work.

Very truly yours,
Henry Spencer, Director,
Detroit Clinical Bulletin.

WORLD WAR DINNER

The medical officers who saw service during the World War will take advantage of the annual meeting of the American Medical Association at Atlantic City to have a reunion and dinner. The officers of the Association of Military Surgeons are heartily behind this meeting and will take an active part in it. It will be a rare opportunity for military surgeons to get together and renew old associations and pleasant memories. Tickets ($5.00 each) may be obtained of Colonel Burt R. Shurly, M. O. R. C., U. S. A., 62 Adams avenue, West, Detroit, Mich. The time and place will be Wednesday, May 27th, at 7 o'clock, at the Ritz-Carlton hotel, Atlantic City. The task of the organizers will be much lightened if reservations are made early.

Committee on Arrangements.

Editor of The Journal:

The Alpena Medical Society desires me to extend through you, their thanks to the State Society for the very fine program supplied for the Post Graduate Medical Conference held in Alpena the second of April. As a result of this conference our Medical Society holds a higher place in the minds of the citizens of Alpena..

Truly yours,
C. M. Williams, Secretary.

Editor of The Journal:

The Samuel D. Gross Prize of the Philadelphia Academy of Surgery for 1925, amounting to Fifteen Hundred ($1,500) Dollars, has been awarded to Dr. John Alexander, Department of Surgery, University of Michigan Medical School, for his essay entitled, "History, Present Practice, and Proposed Reform of the Surgical Management of Pulmonary Tuberculosis."

The Trustees will be very glad if you can make this announcement in your Journal.

Very truly yours,
William J. Taylor,
Trustee Samuel D. Gross Prize.

Editor of The Journal:

To enlist interest and influence against anti-vaccinationists and anti-vivisectionists and others who are making attacks upon the health laws of the country, it is necessary that prejudice and misleading argument be overcome by giving the people reliable health information.

A good deal of this information is contained in HYGEIA, the health magazine published by the American Medical Association. Recognizing this fact, medical societies are sending this magazine

to those who are trying to secure proper legislation for the protection of public health.

Two hundred and seven members of the New York State Legislature are receiving HYGEIA as a gift from the State Medical Society, "with the hope that they will make a study of the contents which bear largely upon health problems." (See the article by Ernest Harold Baynes in the April issue of HYGEIA which has been mailed under separate cover.)

In Pennsylvania, the State Medical Society is sending HYGEIA to two hundred and sixty legislators. The Wisconsin senators and representatives are also receiving this publication through the State Medical Society. In Indiana the members of the State Society have sent one hundred and sixty single copies of HYGEIA to their legislators. We should like to add your Society to this list.

By sending HYGEIA to your senators and representatives you will provide them with valuable information on health questions that may come up at the next session of your Legislature. Our group rates make it possible for societies to subscribe to HYGEIA at a low cost. These rates are given on the green slip attached. If you will advise us by return mail the number of copies you need, we shall be glad to reserve them for you. The names and addresses of your legislators may be sent in later.

Let HYGEIA help you in your fight to secure legislation that will promise protection to public health.

Very truly yours,
American Medical Association.
F. V. Cargill,
Circulation Manager, HYGEIA.

Editor of The Journal:

I have had several inquiries from members of the profession from various parts of the state relative to Post Graduate work in Anatomy. If you will, I would appreciate your including in the "News Notes" the statement that I will offer courses in Surgical, Medical and Neuro-Anatomy at St. Mary's Hospital, Detroit from June 22 to July 18th, 1925.

Physicians or others desiring the course should address me at the Detroit College of Medicine and Surgery.

With best wishes and regards,
Yours very truly,
C. F. McClintic,
Director Department of Anatomy.

State News Notes

COLLECTIONS

Physicians' Bills and Hospital Accounts collected anywhere in Michigan. H. C. VanAken, Lawyer, 309 Post Building, Battle Creek, Michigan. Reference any Bank in Battle Creek.

NURSES' private home, invites convalescents and invalids; best of care, fine location. R. Rs. N. Y. C. and Interurban; best of references given. For particulars write Bessie Bileth, 566 Ely Street, Allegan, Mich.

WANTED: Salaried Appointments for Class A Physicians in all branches of the Medical Profession. Let us put you in touch with the best man for your opening. Our nation-wide connections enable us to give superior service. Aznoe's National Physicians' Exchange, 30 North Michigan, Chicago. Established 1896. Member The Chicago Association of Commerce.

A PRACTICAL course in Standardized Physiotherapy, under auspices of Biophysical Research Dept. of Victor X-Ray Corporation, is now available to physicians. Offers a highly practical knowledge of all the fundamental principles that go to make up the standards of modern scientific physiotherapeutic work. Course requires one week's time. For further information apply to J. F. Wainwright, Registrar, 236 So. Robey St., Chicago, Ill.

COLLECTION SERVICE

AMERICAN MEDICAL BOARD OF ADJUSTERS, First National Bank Bldg., Chicago. Guaranteed *Delinquent* Collection *Service*. Anywhere U. S. A. (Medical Profession Exclusively). Debtors pay you direct. Litigation avoided. Adjustments encouraged. No "Agency" methods. Financially responsible. WRITE!

WANTED—The Michigan Department of Health requires the services of a physician for field service in connection with the prevention and control of communicable disease; opportunity for epidemiological study, and for advancement; initial salary $3,000 yearly and traveling expenses. Address Deputy Commissioner, Michigan Department of Health, Lansing.

Dr. L. Frank Rice of Owosso, died at Memorial Hospital in that city on March 17, 1925.

Dr. D. E. Welch, Grand Rapids, has returned from California.

Dr. R. J. Hutchinson, Grand Rapids, has returned from a vacation, spent in California.

The staff of St. Lawrence Hospital, Lansing, conducted a clinic on April 14th.

Dr. W. T. Dodge, Big Rapids, has returned from a winter spent in Florida.

Dr. George W. Crile of Cleveland, was the guest of honor of the Ingham County Society at its meeting in Lansing, on April 24th.

The new Butterworth Hospital, Grand Rapids, will be opened during the last of May for the reception of patients. The new building will have 270 available beds.

Major Cyril K. Valade, Med.-Res., 814-15 General Necessities Bldg., Detroit, is assigned to General Hospital No. 17 as assistant chief of surgical service. (The above was taken from special orders No. 76 Hdq. 6th Corps Area, Chicago, Ill.)

Dr. Hugh Cabot, Ann Arbor, was elected to the chairmanship of our Joint Committee on Public Health Education, succeeding the late Dr. Burton. The Committee held its regular meeting in Grand Rapids on April 16th.

Battle Creek is to have a new general hospital, made possible by the gift of Mrs. L. Y. Post Montgomery. The hospital will be administered by the Sisters of Mercy and will be open to all physicians

of good standing. All modern conveniences will be provided and work will be undertaken in a few months.

The next examination conducted by the American Board of Otolaryngology will be held at the Ambassador hotel, Atlantic City, on Tuesday, May 26th at 9 a. m. Application blanks may be obtained from Dr. H. W. Loeb, Secretary, 1402 South Grand Boulevard, St. Louis, Missouri.

Chalmers J. Lyons, D. D. Sc., of Ann Arbor, has been appointed by Governor Groesbeck as a member of the State Advisory Council of Health, taking the place of Dr. Frank M. Gowdy of St. Joseph, whose term expired. Dr. Lyons is Professor of Oral Surgery in both the Medical and Dental schools of the University of Michigan, and is a Past President of the Michigan State Dental Society.

Dr. B. R. Shurly of Detroit, in conjunction with others, is perfecting the arrangements for a dinner for all medical officers who served during the World War. This dinner will be held at Atlantic City, at 7 p. m., on May 27th, in conjunction with the A. M. A. meeting. The service will be at the Ritz-Carlton hotel. The Surgeon-General of the Army and Navy and Brigadier General Finney will be the guests of honor. All ex-officers are cordially invited and it is sincerely hoped a good representation from Michigan will find it possible to attend.

Our Society Business and Activities

HARVEY GEORGE SMITH

EXECUTIVE SECRETARY

NOTE: This Department will each month contain a discussion and report of our Society work and planned activities. Your interest and correspondence as to your problems is solicited.

THE ALPENA POST-GRADUATE CONFERENCE

The Alpena Post-Graduate Conference set a record of completeness in post-graduate conferences. The seven previous conferences each added information as to what methods gave best results in the conduct of conferences. Alpena added to all the previous information by not only excelling in some single attainment such as a successful scientific program or an evening public meeting but by demonstrating that practically all factors that make up a city and a community are interested in scientific medicine and look to it for co-operation, advice and treatment in the preservation and care of the health of the people. The Rotary Club of Alpena was host to all the physicians of Alpena and visiting physicians at luncheon served by the ladies of the Congregational church. The Alpena County Medical Society was host to all visiting physicians at dinner, which was served by the ladies of the Episcopal church in the parish house. The parish house was the meeting place for the scientific sessions of the conference especially arranged for the doctors. The Parent-Teachers Association took over the entire responsibility in planning and arranging the meeting for the public and the Alpena News gave publicity by writing a number of front page articles to inform the public, the community, of the fact that the doctors were holding a meeting for the purpose of advancing their own knowledge for the good of the community. The public was informed on its own personal health by Dr. Hugh Cabot, dean of the college of the University of Michigan.

The post-graduate conference really meant a medical day for Alpena. So much medical knowledge had never been let out before in its history. On every corner one could hear the laymen say, "Oh, yes, the doctors are having a big meeting today." The churches knew about it, the city council, the parents of the boys and girls were all informed by a special written invitation sent to each home. The science of medicine was common talk by the people of Alpena. It will remain a fact.

For the first time since the post-graduate conferences have been started in Michigan has a Rotary Club entertained the physicians. The fifty Rotarians and the twenty-five medical men rubbed shoulders, not professionally, but as men, citizens of the same city; and being a citizen is, after all, the real privilege of every American, irrespective of business or profession. The fact that luncheon and dinner were served by the ladies of two churches to one hundred and forty people meant that at least three hundred homes contributed food and showed a direct interest in the science of medicine.

The meeting for the public, especially arranged by the Parent-Teachers Association of the city of Alpena, was an unusual success. It was executed perfectly. The president and secretary of the County Medical Society conferred with the officers of the Parent-Teachers Association and asked if they would like to take part in arranging for a public meeting. They replied by asking if they might not take over the entire responsibility for the meeting. Their wishes were granted. With a community spirit they accepted their task and with the idea that the community must know. There was no suspicion, there was no antagonism, but there was friendship and fellowship. The new

auditorium of the high school was filled, five hundred people being present. The high school orchestra began the program by a series of selections, the president of the Parent-Teachers Association welcomed the doctors of Alpena and visiting physicians and introduced the chairman of the evening, the president of the Medical Society. Dr. Hugh Cabot gave his lecture on the "Germ Facts of Disease and Their Relationship to the Community and the Individual." Mayor DeFoe in a few carefully chosen words, stated that the physicians of the Alpena County Medical Society had and were always ready to give their best service at any time the city called upon them, either in crises or in normal periods.

At the close of the meeting the members of the Parent-Teachers Association entertained all present by serving coffee, sandwiches and cakes and by being hostesses to the hundreds of people present. It was a big task, but it is one of those community activities that helps to make every one look for the best in the other fellow, in the organizations and institutions and shows the way, how best to serve the community and its institutions.

The Alpena post-graduate conference was a success for the following reasons: The officers of the Alpena County Medical Society were wise, careful and aggressive; the scientific program was exceptionally satisfactory to the thirty physicians present; the churches, the Rotarians and the city council participated by giving direct co-operation; the Parent-Teachers Association arranged the public meeting for the purpose of better serving their community and the Alpena News gave general publicity to all the residents of Alpena and surrounding country. In all, the spirit of friendship and fellowship was dominant. The whole city increased its knowledge of scientific medicine. Progress is the result.

The program consisted of the following:

DISTRICT POST-GRADUATE CONFERENCE

Trinity Parish House, Alpena, Mich., April 2, 1925.

12:00—Luncheon—Congregational Church.
Alpena Rotary Club, host to visiting physicians.
Short Talks—Harvey George Smith, Executive Secretary; Hugh Cabot, M. D., Dean Medical School, Ann Arbor, Mich.

1:30—Opening Statements—
Thos. H. Van Leuven, M. D., Councilor, Presiding; Samuel Thos. Bell, M. D., Alpena County Medical Society; C. M. Williams, M. D., Secretary Alpena County Medical Society.

1:45—Physical Examinations—
Phil L. Marsh, M. D., Ann Arbor, Mich.

2:25—Renal Surgery—
Hugh Cabot, M. D., Ann Arbor, Mich.

3:10—Diabetes—
Phil L. Marsh, M. D., Ann Arbor, Mich.

4:00—Gall Bladder and Ulcer Surgery —
Hugh Cabot, M. D., Ann Arbor, Mich.

4:40—Discussions.

6:00—Dinner at Trinity Parish House.
Evening Meeting—High School Auditorium.

8:00—"The Preservation of Your Personal Health"—
Hugh Cabot, M. D., Ann Arbor, Mich.

9:30—Reception by Parent-Teachers Club to Hugh Cabot, M. D., and all visiting physicians.

SUGGESTION AND SCIENTIFIC MEDICINE

"I don't think we know how to use folks in helping to spread the knowledge and use of scientific medicine. We think we are the whole thing," is what one medical man said to another not long ago in this state of Michigan. The other agreed and told this story from his experiences.

"Just a year ago a community not far from this city was having an epidemic of diphtheria, not a serious one, but one case was followed by another, there were quarantined homes, there were very sick children, and luckily, none died. There was opposition to any suggestion of the physicians to have all the children of the community immunized. "Never," was the reply of the folks. It seemed hopeless, when one day a word was dropped to one of the leading residents. The result was that the whole community began to see the error of its ways. It was told to them by one of their own people, one in whom faith was dominant and one to be trusted. A meeting was arranged at the school house, physicians were secured and seventy-eight children were immunized three successive times and not a single parent failed to bring his child one of the three times.

What a splendid story of the correct way to secure the complete co-operation of the folks, the people of communities to further the science of medicine for the best interests of the health of the people. Every physician has this same opportunity, every day, to come in contact with right individuals who will always be the friends of scientific medicine because they see justly and intelligently.

This is a simple little story, but at the same time is an excellent example of social interaction, the value of suggestion, a factor as indicated by the first physician in this story that is neglected or one that we do not know how to use. What is suggestion? In negative terms it is not argumentation, it is not declamation, it is not attention. The field is so extensive that an exact definition is difficult of formulation. An essential element of the concept of suggestion is a pronounced directness of action. Whether a suggestion takes place through words or attitudes or impressions or acts, whether it is verbal or concrete, makes no difference so long as the effect is not attained through logical conviction. Suggestion is immediately directed to the mind by evading personal consciousness. It is a process of infection of ideas, emotions, feelings and psychophysical states. Or, by "suggestion," is to be

understood that type of direct inoculation of the mind of an individual with ideas, feelings, emotions, which evade his "ego," his personal self consciousness and his critical attitude.

Suggestion is a means of securing true promoters, propagandists, educators for the science of medicine, for the folks of every community. Because of his profession the physician is best qualified to give the suggestions that will make for a better understanding by the public of scientific medicine. Let not your interest in medicine become narrow, personal. Remember that whatever you may do, you are a social being, a member of a group, and the group expects you to be a part of it by making suggestions that will benefit both it and the individual. Suggestion is not a theory but a fact. Try it with wisdom and note the changing attitudes in your community.

OUR JOB IS WITH US YET

Membership dues are coming in to the state office every day. The Secretaries of the County Societies have been doing their duty in getting in their reports and thus keeping their members from being placed on the delinquent list. The three thousand mark has not been reached, however. And why not, is the immediate question? The Secretaries have done their duty, and the State Society has called attention to membership since January first. In addition the State Society has tried to secure suggestions as to how better to serve the membership and yet no report has come to this appeal. It is evident that the plans and methods of the State Society are concurred in by all. Surely those who have not paid their membership dues are not following Tolstoy's method to end wars —"passive resistance." We might canvass all the reasons available to any organization or all combined and yet we would fail to find the answer to our quest. The answer very likely is to be found in the little phrase, "I'll send that check tomorrow." The rush of business, social engagements, calls at the office and out in the community caring for the sick have carried the well intended promise from January past April 10, or beyond the date for mailing the May journal. Those members are delinquent because of good intentions that were always one day late—tomorrow.

What can *we* do? Yes, and what can *you* do who have paid your dues and who receive this journal? Surely, no Society wishes to become smaller in numbers and less active in the interest of scientific medicine, especially when there is so much work to be done in organized medicine. When the public is waiting to be informed and when it wishes to see the advances of the science of medicine in every town and hamlet of Michigan. Take up action, is the answer. Appoint committees, one, two, three—as many as needed—to personally interview all delinquents. Appoint committees by districts, buildings, or follow any plan that will bring into the membership all the delinquents and all doctors eligible to membership in the Society. Make the canvasses in teams of two or three and the results will be evident at once. When a membership campaign or a finance campaign is contemplated for a hospital or some civic organization, history tells us that the job is done in from five to ten days. We have approximately eight hundred delinquents as this Journal goes to press. Let's make a "cleaning" in the next two weeks and bring in the "tomorrow men" and make them "today men" in membership. Societies, organize for action, appoint committees, or use any plan that will bring results. But act! To make the "tomorrow memberships" today memberships, see them. Bring in the "Tomorrows."

County Society News

HOUGHTON COUNTY

The Houghton County Medical Society held its regular monthly meeting at the Douglas House, Houghton, Tuesday, April 7th, with fourteen members present. After reading of the minutes of the previous meeting and the allowing of bills, the following program was rendered: Dr. M. M. Nilsson of Houghton gave a very interesting talk of his trip to European clinics. Dr. Nilsson specialized in eye, ear, nose and throat while abroad and his discussion of clinics and methods used was very helpful. He also gave some interesting figures of the general industrial conditions in Europe.

Dr. C. C. Stewart next gave a resume of observations at the Mayo clinic. Dr. Stewart spent the month of March at the Mayo clinic and gave a review of surgical and medical work which he saw while there. Some very interesting figures, given at a symposium on duodenal ulcer, were presented. He also reported a symposium on jaundice. Both of these reviews were fully discussed by those present and many questions answered as to methods used.

It was voted by the Society to pay the expenses of the secretary to attend the County Secretaries' conference at Grand Rapids on April 22nd.

The Society then adjourned to lunch.

G. C. Stewart, M. D., Secretary.

IONIA-MONTCALM COUNTY

The spring meeting of the Ionia-Montcalm Medical Society was held Thursday evening, March 19th, 1925, at the Hotel Belding, at 7 o'clock. Only twelve members were present owing to the bad conditions of roads. After dinner the following program was presented:

Subject: "The Pathogenesis of Certain Skin Affections." Speaker, Earl Smith, M. D., of Grand Rapids, Mich.

Dermotology, with its complicated terminology, has always been a bugbear to the practitioners of medicine, but after hearing Dr. Smith present the subject in a clear and concise manner, covering the etiology, pathology and treatment, we were all convinced

that skin diseases, stripped of its long sounding names, could be made quite understandable.

The talk was supplemented by lantern slides showing many important skin lesions. The Society expressed itself as being very grateful to Dr. Smith for presenting this interesting subject.

Dr. Fred Currier of Grand Rapids, Mich., spoke on "Functional Nervous Diseases," giving a very timely and instructive talk on the "anxiety neurosis." This talk was well received by all the members present as was evidenced by the many questions asked.

A rising vote of thanks was extended Doctors Smith and Currier for the excellent program rendered.

F. A. Johnson, Sec'y.-Treas.

GENESEE COUNTY

Genesee County Medical Society met for noon luncheon at Hotel Dresden, Flint, February 18th, 1925.

The speaker of the occasion was Dr. Ramsey, Michigan State Department of Health, Lansing, Mich. His subject was, "Scarlet Fever—Its Control and Practical Value."

Genesee County Medical Society met for noon luncheon at Hotel Dresden, Flint, March 4, 1925.

Speaker, Dr. Stein, Director Research Laboratories, Park-Davis & Co., Detroit. His subject was "Endocrine Glands."

Genesee County Medical Society met for noon luncheon at Hotel Dresden, Flint, March 18th, 1925.

The speaker was Dr. Davis, Professor of Pathology, Detroit College of Medicine. His subject was "Pathology of the Kidney."

Genesee County Medical Society met for noon luncheon at Hotel Dresden, Flint, April 1st, 1925. Dr. Stuart Wilson, Grace Hospital Staff, Detroit, acted as speaker. His subject was, "Subacute Bacterial Endocarditis," with demonstration of specimens.

G. J. Curry, Secretary.

SHIAWASSEE COUNTY

A joint meeting of the Memorial Hospital staff and the Shiawassee County Medical Society was held at Memorial Hospital in Owosso on the evening of April 7th, at which time the dentists of Owosso and vicinity were the guests.

B. S. Sutherland, D. D. S., of Owosso, addressed the meeting on "Some Medico-Dental Problems." Numerous points of interest to both professions were discussed and the discussion which followed was most valuable.

The hospital nursing staff furnished refreshments at the close of the meeting.

W. E. Ward, Sec'y.-Treasurer.

WASHTENAW COUNTY

The regular meeting of Washtenaw County Medical Society was held at Michigan Union, Ann Arbor, Monday, March 30, 1925.

Business: Report of committee on method for securing wider use of toxin-antitoxin.

Mr. Benjamin Gruenberg, managing director of the American Association for Medical Progress, spoke before the Society.

A comparatively small number have paid dues for 1925. These should be paid at once, as the number of our representatives to the State Society depends on the number of members who have paid dues. The dues for 1925 are $12.00, of which the State Society receives $10.00 and the County Society $2.00.

REPORT OF FEBRUARY MEETING

About thirty members attended the dinner meeting held at the Michigan Union, February 25th.

After some discussion of the use of toxin-antitoxin for the prevention of diphtheria, on motion a committee of four, Doctors J. A. Wessinger, Chairman; F. R. Waldron, John Sundwall and E. K. Herdman were appointed to formulate and present to the Society a plan for securing further use of toxin-antitoxin in children.

Dr. Hugh Cabot gave an interesting address on the subject of "Kidney Tumors," and Dr. Preston H. Hickey discussed the X-ray findings in that condition. Dr. Hickey also presented lantern slides illustrating the points in diagnosis.

KENT COUNTY

The regular meeting of the Kent County Medical Society was held on April 8, 1925, at the St. Cecilia Building, Grand Rapids.

Dr. Burton R. Corbus reported several cases of extreme urticania among the nurses of Butterworth Hospital, following the injection of scarlet fever serum "Lilly." Appropriate measures are being taken by the manufacturers to prevent the recurrence of such attacks.

Dr. R. H. Denham reported an interesting case of sarcoma of the oerthebhrae.

Following these reports a "Clinical Pathological Conference on Bone Sarcoma" was given by Doctors Preston M. Hickey and A. S. Warthin of the University of Michigan. Their method is the case method with accompanying lantern slides. Dr. Hickey gave the roentgenological findings, following which Dr. Warthin gave the pathological findings. This constituted one of the most interesting and instructive meetings that the Kent County Medical Society has held this year.

H. T. Clay, Secretary.

OAKLAND COUNTY

A meeting of the Oakland County Medical Society was held April 17th, at 6 p. m., at Pontiac. The following names were proposed and accepted for membership. Dr. Charles D. Strain, Dr. B. A. Spencer, Dr. Francis A. Scott (associate), Dr. John A. Gaston and Dr. G. F. Hamlen, all of Rochester, Mich. This makes us 100 per cent in Rochester, Michigan.

Dr. Hugh Cabot of Ann Arbor, gave a very excellent paper on "The Management of Small Stones in the Kidney and Ureter," illustrated with lantern slides. This was given in Dr. Cabot's usual fine style and was enjoyed and discussed by all. There were about thirty-five members present.

The next meeting will be held in Rochester, May 20th, at 6 p. m., with Dr. H. W. Hewitt of Detroit, as the speaker.

Leon F. Cobb, Secretary.

ALPENA COUNTY

The regular meeting of Alpena County Medical Society was held March 19 at the office of the U. S. Weather Bureau. The local meterologist of the Weather Bureau gave a most instructive paper on the effect of climatic conditions on health. Most valuable suggestions were given regarding temperature and humidity in operating rooms. He contended that the humidity of operating rooms should be about 40°. He showed how the evaporation of fluids about a thermometer lowered the temperature. The lowered temperature of exposed tissues during operation being productive of shock.

Dr E. L. Foley read a valuable paper, summarizing the literature on "Mercurichrome, the New Intravenous Medicine for Blood Infection."

The Post Graduate Medical Conference was held in Alpena, April 2, Doctors Hugh Cabot and Phil Marsh of Ann Arbor giving the scientific papers. Some thirty doctors from the neighboring cities attended the meetings. The Alpena Rotary Club entertained the doctors at luncheon, and the Alpena Medical Society entertained at dinner. The public address was given in the High School Auditorium, Dr. Hugh Cabot addressing a capacity audience on "The Care of Your Personal Health." Following the address, the Parent-Teachers' Club tendered a reception to Drs. Cabot and Marsh in the High School gymnasium. Refreshments were served during the evening. The local Society was more than pleased with the conference. C. M. Williams, Secretary.

MUSKEGON COUNTY

A regular meeting of the Muskegon County Medical Society was held in the Community Room of the Union National Bank Building, Friday evening, April 3rd, with 39 members present. Dr. F. W. Garber, Sr., gave a pleasing talk on his recent trip. He told of his impressions of New Orleans and the Mardi Gras, described his visit at Havana, the trip about the Canal Zone, to several ports in the United States of Columbia and of his stay in Jamaica.

It having been proposed to amend the Constitution of the Muskegon County Medical Society in the Article relating to "Eligibility to Membership," it was now brought to a vote. Of the 39 qualified to vote, 29 voted for the amendment, 2 against the amendment, one refused to vote and 7 were absent. As 3 more than the necessary two-thirds voted for the amendment, it was declared passed. The article now reads: "Every legally registered and reputable physician residing and practicing in Muskegon County, who is of good moral and professional standing, and who will agree in writing over his own signature to practice non-sectarian medicine only and who will further agree in the same manner not to accept service in any of the so-called Aid Societies in what-so-ever form they be organized, shall be eligible for membership. Furthermore, it is understood that no present member shall engage in any future contract for aid society work, whether written, verbal, or implied, not in existence at the present time. Furthermore, it is understood that when any contract for agreement for aid society work, whether written, verbal or implied, now in existence shall expire, no new contract or agreement shall be made or entered into."

It was voted that the Secretary attend the Secretaries' Meeting at Grand Rapids the 22nd, inst.

P. S. Wilson, Secretary.

GRATIOT-ISALELLA-CLARE COUNTY

The March meeting of the G. I. C. was one of the best we have had in a long time. Dr. Reuben Peterson, Professor of Obstetrics at the University was our guest. His subject was entitled, "Complicated Obstetrics." The doctor read the histories of 12 cases they had recently had at the University Obsterical Clinic and commented on each one individually as he went along.

After this nearly every member wanted to ask the doctor questions, because each one was actively interested in this subject. Altogether it was counted a very profitable meeting, 20 members being present. E. M. Highfield, Secretary.

OAKLAND COUNTY

The last meeting of the Oakland County Medical Society was held March 20th, 1925, at 6 p. m. We had dinner and were then addressed by Dr. C. E. Vreeland, of Detroit, on "Vomiting, Differential Diagnosis and Treatment." This was a very excellent address, and was enjoyed by all.

The application of Dr. Palmer E. Sutton of Royal Oak, Mich. received and Dr. Sutton was elected to membership. A resolution was passed indorsing our Health Officer's stand in the matter of local chiropractor having been found treating a case of small-pox.

You will find inclosed a newspaper clipping showing how our local city editor kept his friend the Chiropractor's name out of the paper.

Following you will see a copy of the letter from Dr. Neafie to our local prosecutor:

"Clyde D. Underwood,

"Prosecuting Attorney, Oakland County,,

"Pontiac, Michigan.

"Dear Sir:

"In accordance with the State Law requiring the Health Officer to notify the prosecuting attorney whenever he shall know, or have good reason to believe, that there has been a failure to report a dangerous communicable disease, I beg to submit the following information:

"On March 15, 1925, Dr. B. M. Mitchell reported Mrs. Mary A. Hallinan, age 47, of 84 Auburn Avenue as suffering from small-pox. Investigation of this case shows that the woman was taken sick on March 5th, 1925, and that the eruption appeared on March 8th. Mrs. Halliman received chiropractic adjustments from B. A. Te-Poorten. These men failed to give notice of the case to the Health Officer, as required by law.

"In a section of the State Law, relating to the control of communicable diseases, I find the following:

"'And every physician and person acting as a physician, who shall refuse or neglect immediately to give such notice, shall be deemed guilty of a misdemeanor, etc.'

"As a number of people were exposed to this case six days after the appearance of the eruption, and while the eruption was in a pustular stage, I deem this matter worthy of your attention.

"Very truly yours,

Director of Public Health."

L. F. Cobb, Secretary.

INGHAM COUNTY

The following is some additional Ingham County notes for the Journal:

On March 12, 1925, the Ingham County Medical Society met at the St. Lawrence Hospital at 8 p. m. with 25 members in attendance. Because of the absence of the President and Vice-President, on account of sickness, the meeting was conducted by the Secretary. Two committee appointments were read and also a report of the Committee on the Gorgas Memorial Fund was presented. The meeting was then turned over to Dr. Rockwell, chairman of the program committee, who introduced Charles L. Bliss, State Toxicologist, connected with the State Department of Health, who gave a very interesting talk on "Some Personal Experiences In Medico-Legal Cases." In his talk Mr. Bliss gave us some very valuable information relative to the obtaining of autopsy material for the purpose of chemical examination. Dr. Rockwell next called upon Dr. Earl I. Carr, who gave a splendid paper on "Lesser Injuries to the Joints and Bursae." The paper was illustrated with several steriopticon slides and much valuable information was obtained from Dr. Carr's dissertation. Horace L. French, Secretary.

On February 18, 1925, a noon luncheon was held in the parlors of Hotel Downey with 45 members answering to roll call. There was no scientific program arranged, the meeting being called for the transaction of business. A very interesting discussion was carried on by the Society relative to the matter of legitimate publicity for the Society and the Profesion, and a Committee was formed for the purpose of establishing a definite platform for this purpose. A committee was also appointed for the drafting of the resolutions of the Society on the death of President Burton. At this meeting Dr. Wm. Henry Witter of East Lansing was elected to membership in the Society.

On February 19 the Second District Post Graduate Conference was held at Jackson and the following members of the Ingham County Society attended: Doctors Russell, Freeland, Osborn, Bruegal, Brucker, Shaw, McIntyre, Gardner, Hart, Barber, Peacock, McCrumb, Bellinger, Culver, Yerkes, Darling, V. Huntley, Haynes, Wiley, H. A. Miller, Weinburgh, Rockwell, Rulison, Wershaw, F. Huntley, Gauss, Carr, Welsh, Seger, Davey, French, P. C. Strauss, Randall, Pinkham, Niles, Dutt, Wight, Drolette and Christian.

The program was very instructive and interesting and the men all felt that the meeting was well worth while, especially did they enjoy the two talks by Dr. Sped of Chicago.

On February 24, 1925, a dinner-dance given by the Doctors, Druggists and Dentists Society was held at the Elks Temple. Last year this function was given under the management of the doctors, and this year the dentists assumed the greater share of the responsibility and the result was a very pleasant and enjoyable affair.

Horace L. French, Secretary.

MEETING EXECUTIVE COMMITTEE OF THE COUNCIL MICHIGAN STATE MEDICAL SOCIETY

The Executive Committee of the Council met in Grand Rapids, April 2, 1925, at 6:30 p. m.

Present—Jackson, Stone, Corbus, LeFevre and Secretary Warnshuis.

1. The Secretary-Editor submitted the following report:

(a) Bank balance, $14,137.31.

(b) On April 2nd there were 123 more membership dues paid than on April 2nd, 1924, one year ago. This indicated no loss of members because of increased dues.

(c) Nine district clinical conferences have been conducted. The balance will be completed before June. The Upper Peninsula will be covered by three meetings in July and August.

(d) The activities of the Legislative Committee and the situation at Lansing were discussed, and approval accorded of the manner in which the situation was being handled.

(e) Report of Conference had by the Secretary with the Council of the Wayne County Medical Society was reported and Wayne's co-operative loyalty commented upon.

(f) The report of plans for our annual meeting were presented and the program committees' activities approved.

(g) Announcement was made of securing the Mayo Michigan Foundation Lectures for publication in the Journal. Editor also related plans for securing other scientific articles for the Journal. The Editor was instructed to develop these plans.

(h) Approval was made of plans for County Secretaries' Conference on April 22nd, and all Councilors were urged to attend that Conference.

2. The Secretary was authorized to invest surplus cash in safe, negotiable bonds.

3. Secretary was authorized to exercise his best judgment in the matter of clerical assistance in the office.

4. Secretary's plan of writing all delinquent members a personal letter was approved.

5. Secretary was instructed to cause the Executive Secretary to visit all the County Societies during the Spring and Summer.

6. Secretary was instructed to arrange with Dr. Shephard, President of the State Tuberculosis Society for a series of Tubercular Diagnostic Clinics before County Societies.

7. Secretary was instructed to secure, if possible, Dr. G. F. Vincent for our annual meeting.

These several subjects were fully discussed and plans outlined. Adjourned at 10:00 p. m. Next meeting to be held in May at Chairman's call.

F. C. Warnshuis, Secretary.

Among the Books

A Review and Frank Appraisal of Medical Books That are Proffered to the Profession by Publishers.

PATHOLOGY AND BACTERIOLOGY OF THE EYE: E. T. Colling, London Ophthalmic Hospital, and M. S. Mayou, Surgeon, London Ophthalmic Hospital. Second Edition, illustrated. P. Blakiston's Son & Co., Philadelphia, Pa.

This text, first appearing thirteen years ago, is again available in a revised, modern edition. Its

text justifies its title and satisfactorily discusses the bacteriology and pathology of the eye. It impresses one as being a valuable addition to our ophthalmic literature.

ABT'S PEDIATRICS (Volume VI): By 150 specialists. Edited by Isaac A. Abt, M. D., Professor of Diseases of Children, Northwestern University Medical School, Chicago. Set complete in eight octavo volumes totaling 8,000 pages with 1,500 illustrations, and separate Index Volume free. Now ready, containing 736 pages with 127 illustrations. Cloth $10 per volume. Sold by Subscription. W. B. Saunders Company, Philadelphia and London.

This volume of this master system deals with: Body Temperature, Infectious Diseases, Anesthesia, Childhood Surgery, Malformations, Vulvo-vaginitis and Arthritis Deformans. It represents the high standards of the previous five volumes. It more firmly establishes the authoritative position of this system on pediatrics. No physician can afford to be without these volumes which stand out in our text-book literature.

THE PHYSIOLOGY OF MIND: An Interpretation Based on Biological, Morphological, Physical and Chemical Considerations. By Francis X. Dercum, M. D., Ph. D., Professor of Nervous and Mental Diseases in the Jefferson Medical College, Philadelphia. Second edition, reset. 12 mo. of 287 pages. Cloth, $3.50 net. W. B. Saunders Company, Philadelphia and London.

A discussion of facts that are basic in the functioning of what we speak of as "mind". Presented by an author who has gained distinguished recognition, its deductions are reliable and the physiological functions are admirably elucidated.

SERUM DIAGNOSIS OF SYPHILIS BY PRECIPITATION: R. L. Kahn, CcD., Michigan Department of Health. Cloth, 237 pp. Williams & Wilkins Co., Baltimore, Md. Price $3.00.

The Wassermann test is well known. It is dependent upon technical accuracy. Kahn has simplified that technic and sets forth his studies in this volume. Governing principles, procedure and clinical interpretation are ably set forth and are comprehensive.

The text will be welcomed by all engaged in laboratory work for it is a clear presentation of a test that has been demonstrated as reliable.

PRINCIPLES OF SURGERY FOR NURSES: M. S. Woolf, M. A., B. Sc., M. R. C. S. (Eng.), L. R. C. P. (London), Inspector in Surgery, University of California Hospital, San Francisco. 12 mo of 350 pages, illustrated. Cloth, $3.00 net. W. B. Saunders Company. Philadelphia and London.

A splendid guide for students in hospital training schools.

CHOLECYSTOGRAPHY

E. A. Graham, W. H. Cole and G. H. Copher, St. Louis (Journal A. M. A., April 18, 1925), have found that equally good cholecystograms can be obtained with tetraiodophenolphthalein in much smaller doses as with tetrabromphenolphthalein. This is possible because of the difference in the chemical composition of the two compounds. Sodium tetrabromphenolphalein contains 50 per cent of bromin by weight, whereas sodium tetraiodophenolphthalein contains 61 per cent of iodin by weight. These two factors, on which the opacity to the roentgen ray is largely dependent, favor the use of sodium tetraiodophenolphthalein. Injection of 0.18 gm. of sodium tetraiodophenolphthalein per kilogram of body weight in dogs will produce a roentgen-ray shadow of the gallbladder practically every time. A similar dose of tetrabromphenolphthalein will produce shadows in scarcely 50 per cent of dogs. The lethal dose of 0.27 gm. per kilogram of body weight is the same for the two drugs. The authors are now using a dose of 0.053 gm. per kilogram in the human being for satisfactory shadows. Sections of the human liver do not show any lesions after injections of either tetraiodophenolphthalein or tetrabromphenolphthalein has been alternated in the last forty-two cases for cholecystography. Sodium tetrabromphenolphthalein was used in doses of 5 gm. and sodium tetraiodophenolphthalein in doses of 3.5 gm. for persons weighing 60 kg. (130 pounds) or over. This dose of sodium tetraiodophenolphthalein produced shadows of the gallbladder that were fully as satisfactory as those produced by tetrabromphenolphthalein. The reactions following the injection of sodium tetraiodophenolphthalein were distinctly less marked and fewer in number than after injection of sodium tetrabromphenolphthalein. Sodium tetraiodophenolphthalein can be made into solutions as high as 40 or 50 per cent without difficulty. The authors have arbitrarily chosen a 12.5 per cent solution (8 c.c. of water per gram) for injection. A more concentrated solution than this may produce necrosis of tissue if injected outside the vein. Three and five-tenths grams of sodium tetraiodophenolphthalein, which is an adequate dose for an adult, is dissolved in 28 c.c. of freshly distilled water. The solution is filtered through a fine filter paper and sterilized in a boiling water bath for fifteen minutes. Individual doses are put in ampules. A solution in ampules has been injected without any change in toxity as long as three weeks after preparation. The solution is given intravenously in two doses, one-half apart, in the morning before breakfast, between 7:30 and 9 a. m. Care should be taken not to allow extravasation outside the vein during injection. After oral administration there are certain variations in intestinal tolerance and in the rate of absorption from the intestine. On the other hand, in an intravenous injection, a known dose is introduced into the blood stream. Dosage is a very important feature of the method. The value of the clinical application of the method is as important as a test of function of the gallbladder, as it is a means of visualizing the organ.

ACUTE SYPHILITIC MYELITIS WITH FATAL ASCENDING PARALYSIS

George L. Lambright, Cleveland (Journal A. M. A., April 18, 1925), cites a case which is typical of what can be seen in a typical case of acute syphilitic myelitis with a fatal ending. The diagnosis was made from the history, symptoms, neurologic examination, and performance of the laboratory tests on the blood and spinal fluid. Cord paralysis was obvious from the sudden paralysis of the limbs and sphincters, with disturbance in sensory sensation The symptoms of chill, nausea, girdle pains and back pains are typical of this condition. The early spasticity of the limbs with hyperactive reflexes soon changed to flaccidity and lost reflexes, as the inflammation in the cord progressed. Ankle clonus, and the Babinski and Romberg signs are always present during some stage of the disease, and sometimes Brown-Sequard phenomena are present, also. Trophic ulcers, which are quite often present, were absent in this case.

The Journal
OF THE
Michigan State Medical Society
ISSUED MONTHLY UNDER THE DIRECTION OF THE COUNCIL

Vol. XXIV. GRAND RAPIDS, MICH., JUNE, 1925 No. 6

Original Articles

MANAGEMENT OF GOITRE—PRIMARY HYPERTHYROIDISM OR EXOPTHALMIC AND ADENOMATA WITH HYPERTHYROIDISM OR THYROTOXIC TYPE*

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DETROIT, MICHIGAN.

While there are various types of goitre, they may be classified by their symptoms as well as by their histological structure and it will usually be found that the histological picture will give one a very definite idea of the clinical course. We choose for this discussion two types of goitre, those which are not associated with Hyperthroidism or Dysthyroidism and those where hyperthyroidism or dysthyroidism is the main or one of the main symptoms. First we wish to divide goitre into five main groups.

I.

Simple goitre, diffused or colloid:

a. Adolescence.
b. Physiological of pregnancy.
c. Accompany infectious diseases.

Symptoms:

1. Occasional slight or nervous symptoms.
2. No muscular or nervous weakness.
3. No increase of basal metabolic rate.
4. May be mechanical, causing pressure on circulation and nerves.

II.

Goitre—Adenomata without hyperthyroidism:

a. May be cystic, hemorrhagic colloid or a combination with adenomata.
b. No nervous symptoms.
c. No muscular symptoms.
d. No heart or gastro-intestinal symptoms.
e. No increase of basal metabolic rate.
f. May cause pressure symptoms.
g. May become malignant, or
h. May become type III (adenomata with hyperthyroidism.

III.

Adenomata with hyperthyroidism (thyro-toxic).

a. Tachycardia.
b. Increased basal metabolic rate.
c. Tremor.
d. Muscular and nervous weakness.
e. Loss of weight.
f. Gastro-intestinal symptoms.
g. May become malignant.
h. May be associated with (type IV or exophthalmic goitre; Primary hyperthyroidism).

IV.

Exophthalmic—(Primary hyperthyroidism). (Graves Disease)

a. Exophthalmos.
b. Tremor.
c. Increased basal metabolic rate.
d. Loss of weight.
e. Muscular and nervous weakness.
f. Gastro-intestinal.
g. Disorders of menstruation (amenorrhoea).
h. Seldom become malignant, and then associated with adenomata.

V.

Goitre—Malignancy, carcinomata, sarcomata, etc., secondary to adenomata.

Symptoms:

1. Early. Same as II and III discovered at operation upon miscropical section.
2. Late. 2 plus 1. Pressure upon trachea, essphagus, nerves and circulation.
3. Cachexia.
4. Metastasis, especially lung and long bones.

We do not at this time intend to discuss types (I) Colloid goitre or type (II) Adenomata without Hyperthyroidism except for simple statement that the usual colloid type is non-surgical and except when becoming cystic will respond readily to medical treatment, which is Iodine. In many cases they will need no treatment. Great care should be used in keeping these cases under observation and to use small doses of Iodine over a longer period than from large doses over a short period. These cases are not suitable for X-ray or radium therapy. In many young adults with marked colloid goitre we have seen marked improvement after attention to oral hygiene, along with proper diet and tonsillectomy, in septic tonsils by examination even without a history of tonsillitis. Goitre of this type may become cystic, the so-called colloid cyst. These rarely become malignant and unless improperly treated do not become associated with hyperthyroidism, but not infrequently are associated with hypothyroidism.

*Read before the Wayne County Medical Society, December 22, 1924.

TYPE II.

Adenomata without hyperthyroidism, should be treated surgically unless they are very small, as many cases of this type undergo hyperplasia of their epithleal elements, and become toxic with the accompanying one or more symptoms of group III. Under usual conditions there is no danger with this type of operation, and the patient makes a complete and permanent recovery. In cases of large or cystic types of this group, operation should not be delayed, as here the danger of delay would be the added symptoms, such as mechanical symptoms, and hyperthyroidism and malignancy. It is important in the surgery of this type that as much of the adenomatous tissue as possible be removed. In the surgery of a decade ago many of these cases did not have all of the adenomatous tissue removed, and the operation received the blame for not affecting a cure, when the trouble was that a considerable portion of adenomatous tissue was left behind, which later caused symptoms. It will be found best to leave a small portion of each upper pole when possible and a thin portion over the posterior capsule. These cases should be observed by the family physician from time to time for a period of two or three years and if there appears to be a return of the adenomata a short course of small doses of Iodine will usually cause the disappearance of the nodules. Some of the smaller adenomata will respond to iodine, but we question the advisability of using iodine to the larger types. Great care should be used in treating these cases with X-ray or radium therapy as a large number will have associated cystic or hemorrhagic which are unsuited to this treatment.

TYPE III.

Many cases of this type are directly the result of improper or prolonged medical treatment of Type II and the bad results following such case may be due to the delay of proper treatment. In suitable cases of this type surgery offers the best hope of permanent cure, and it should not be postponed until the patient's muscular and nervous system as well as the essential organs, such as heart and liver have suffered permanent damage. From the experience of many observers, in thousands of cases we believe surgery to be far safer for effecting a cure than any other treatment, by medication, or X-ray or radium therapy or a combination of such. One of the principal reasons for this is that when a proper selection of patients has been made and the correct type of operation has been performed, after careful preliminary pre-operative and post-operative treatment, which is begun on the operating table, patients will have more than 90 per cent of cures. There will be an extremely small operating mortality when the correct operating judgment has been used. It cannot be expected that late operations or any form of treatment or combination of treatments will cure the thyrotoxic cardia or repair the hepatic cells. Here again we state that delay in the operation of wrong judgment at the operation is the cause of most of the mortality and all of the morbidity in such cases.

We believe that an operation for subtotal thyroidectomy may be performed in this type with a relative higher metabolic rate than in the exophthalmic or primary hyperthyroidism type IV cases. This we believe is because at the operation we removed practically all of the thyroid tissue which is causing the symptoms and the danger of post-operative hyperthyroidism with galloping pulse and post-operative temperature is less than in exophthalmic cases. The danger of operating in exacerbation or shortly after an acute infection like tonsillitis, or when the metabolic rate is going up are important factors and a surgeon's best judgment is needed to determine the best time to operate. Hot water injections have been used by a number of surgeons, but we believe the danger of this form of treatment to be fully as dangerous as a hemi-subtotal thyroidectomy or bilateral subtotal thyroidectomy. Polar ligation or partial excision should not be performed on pure adenomatous goitre associated with hyperthyroidism, but only in the exophthalmic cases or primary hyperthyroidism cases, and it is often a failure of the surgeon to differentiate this type and to employ the wrong type of operation in this group that there has been so large a mortality and morbidity. Iodine and thyroid extract may make this type of case worse, and when any good follows such medication it will be found that the goitre is of a mixed type, of adenomata with hyperthyroidism and exophthalmic goitre, and if any good follows the careful administration for diagnostic purposes it had best be used as a pre-operative measure rather than a curative one, as these cases have repeated exacerbations and remissions, and every such upset leaves behind, permanently damaged organs.

TYPE IV.

Exophthalmic goitre or primary hyperthyroidism. Here we have a definite syndrome, but in many cases of mild types, these patients have been treated for months

medically for the tachycardia without recognizing that the symptoms were due to a thyro-toxic condition. The symptoms in many of these cases will be in inverse ratio to the size of the gland and some of the worst cases we have seen have had relatively small glands, but high metabolic rate and marked cardiac and nervous symptoms. We consider the treatment first advised by Plummer of administration of Lugol's solution (or comp. tr. iodine) in from MV or X or tid to be very helpful. When this agent is beneficial it seems to work as magically as digitalis in the heart from fibrillation, and we have been surprised to see the marked improvement in patients who were extremely sick, especially with vomiting and galloping pulse, following a few days of such medication. We have not used the Lugol's solution alone, but have combined it with absolute rest in bed, ice over the heart, sometimes using an ice pack over the chest, with hypodermoclysis, morphine in large doses and digitalis when indicated. There seems to us to be a marked improvement in the general clinical symptoms as well as the lowered basal metabolic rate, which we did not obtain without this method. We are inclined to depend upon the clinical symptoms fully as much as the basal metabolic rate, before deciding upon operation. We consider that a patient who is not able to sleep fairly well with moderate sedative, or who is not able to take and retain nourishment is not fit for any operation or for X-ray treatment. If radium is used as an adjunct to medical treatment, it should be used with great care and experience.

Until a few years ago, we were inclined to advise medical treatment for a time on primary exophthalmic cases, such as vegetable diet, avoiding coffee or tea, rest in bed, ice, sedatives, etc., now we believe that early operation is better and treat all such cases surgically before they have damaged heart muscle, simply studying them sufficiently to be absolutely sure of the diagnosis, then advising operation as soon as the diagnosis is made, if the patient is in condition for such.

Great care must be used to avoid operative procedures upon cases of miliary tuberculosis, in young people, also in diagnosis of the thyrotoxic syndrome based on thyroid disease, by careful observation with repeated test of the basal metabolic rate, as some cardiac cases may simulate a few of the symptoms. In some cardiac cases, however, there will usually be a history of tachycardia following tonsillitis or some infectious disease, while this may also be the history in the thyrotoxic case, usually the nervous symptoms and loss of weight are of value, relatively early in the thyrotoxic patient. The primary hyperthyroidism may also follow acute infection or mental strain. In any question it is of the utmost importance not to depend upon one reading of the basal metabolic rate, but to repeat it every three or four days. Every surgeon of experience will see a certain number of thyrotoxic cases who have been treated as primary cardiac cases. It canont be expected that patients will be cured medically of the cardiac and associated symptoms when they are caused by toxic thyroid, whose treatment is surgical. We wish to repeat that in a number of cases with one or more symptoms of thyrotoxicosis that the size of the palpable gland may mislead any but the most careful observer and it will be well to remember that a hyperactive gland apparently of normal or subnormal size may cause severe symptoms of thyrotoxicosis. We believe the mistake of treating these cases medically is more likely to occur in the small adenomata associated with hyperthyroidism rather than in primary or exophthalmic. Clinical surgeons have long recognized the fact that many of these cases are of mixed type. Adenoma with Hyperthyroidism which have only been causing moderate or unrecognized symptoms to take on the characteristics of the primary or exophthalmic type. This is often seen after apparent infections, such as following a slight case of tonsillitis.

PRE-OPERATIVE TREATMENT

After the correct diagnosis has been made in the thyrotoxic group it is of importance that the surgical procedure should be performed when the patient is in the best condition possible. A number of these cases in the stage of exacerbation will have high blood sugar and a chemical study of the blood should always be made in the severe types. Usually two weeks of absolute rest in bed with quiet environment with the use of one or more of the adjunct agents mentioned above will put the patient in condition for operation, even in severe cases. The pulse rate will diminish as a rule from 140 to 160 to 120 or below, digitalis is used when indicated, usually in fibrillation only, and should not be continued after its necessity has ceased, as we may upset the gastro intestinal tract. Sedatives such as bromide or morphine are given, as indicated to aid the patient to sleep. We do not advise any of the coal tar derivatives for these patients.

Careful record should be kept of the intake and output of fluids, at least eight

ounces of fluids should be given every two hours in addition to other food. Patients who have edema or are delerious or who have marked gastro-intestinal upset are usually not considered safe even for polar ligation, and we advise against such, unless it is seen that the case is not improving under medical management.

OPERATION

It is evident that time will permit of only a few details of operative technic. We consider it safest to have the fullest confidence of the patient and his friends that the operation decided upon by the surgeon will be the safest one for the condition at hand.

Preliminary hypnotic, as morphine gr. ¼ two hours before operation followed by morphine gr. 1/6 one-half hour before operation. In some desperately ill patients we advise one tablet of H. M. C. No. II two hours preceding operation. Team work in the operating room is especially essential in these cases. The patient should be brought to a quiet operating room where all will be in readiness and the simplest preparation is made of the operating field. For over fifteen years we have employed nitros oxide and oxygen and lately ethelyne gas and oxygen with local anesthetic, novocaine ½ of 1 per cent in some cases.

The post-operative nausea and sickness of ether should always be avoided if possible, as these patients are sick enough without adding to their sickness. Whatever operation is decided upon should be performed as expeditiously as possible without trauma and blood loss. In every patient the operation will suit the case and the patient not be expected to fit a particular type of operation. If, as the operation is proceeding, it is found that the patient's condition is satisfactory, the one stage operation for adenomata with hyperthyroidism is most satisfactory, in certain cases a hemi-subtotal thyroidectomy is done, i. e., removing one lobe and allowing the other lobe to be removed at a later date, in ten days to two weeks or even longer. In the primary hyperthyroidism or exophthalmic cases, it may be decided that a polar ligation will be all that a patient should have as the first step. We believe that the ligation of both poles at one seance is almost as severe, or even more so than a one-stage sub-total thyroidectomy, on account of the more dangerous post-operative hyperthyroidism; whereas in the radical operation, if the tissue is handled kindly, much of the danger of this formidable complication will be avoided, because we have removed the gland which is causing the hyperthyroidism.

We have always considered it safest to use a small rubber drain in the severe toxic cases, usually two pieces of rubber tissues are used, one to each lobe, and combine this with a small gauze pack in all large adenomata, with or without substernal types. This drainage material is usually not disturbed for three or four doys. As far as we know it has not interfered with wounds healing or with post-operative scar. In the very severe cases, it may be best to allow the wound to remain well open around the drainage tubes using skin clip in a day or two or putting in horsehair sutures and tying them later.

All patients with high metabolic rate associated with the usual clinical symptoms have hypodermoclysis on the operating table of from 300 to 500 cc's. This is given under the breasts and begins as soon as the patient is under gas anesthesia. These needles are not removed, but covered with a sterile dressing and used to give from 200 to 300 cc of saline solution, every two hours for several hours or until the condition is satisfactory. We have been convinced for years that this is a very important step in the management. The patient is usually very sleepy after leaving the operating room and is kept so for 24 to 30 hours, depending upon the circumstances, by the administration of morphine in ¼ grain doses every three or four hours for several doses, if they waken and appear disturbed. It is very important that these patients rest after operation. It will often be found that the cases who do not get well are the ones who are allowed to thrash around and do not get immediate fluids. In addition to the saline by hypodermoclysis, the patient is obliged to drink large quantities of water, whether it is wanted or not, and is given one pint of tap water, ten ounces of five per cent glucose and two teaspoonsful of soda bicarbonate per rectum by drip method every four or six hours. If the patient wil not retain this drip he is given larger quantities of saline by needle. Digitalis is used if needed and two ice caps are kept on the chest continually until the patient' condition is good.

Even with the usual care in the management of these cases, with the combined skill and experience of the medical and surgical staff and with the addition of team work in the operating room, which includes a skilled, tactful anesthetist and skilled pre-operative and post-operative nursing, the ultimate results will depend much upon the progress of the disease before operation and the skill and painstaking care of details of their management.

REPORT OF CASES

In the last four years we have operated upon a total number of 110 cases of primary exophthalmos and adenomata with hyperthyroidism, with basal metabolic rates upon admission to Harper Hospital from 12 to 100 per cent above normal. Cases of adenomata or promary hyperthyroidism below 12 per cent are not included in this series.

In this group were four cases of carcinoma all with increased metabolic rate. The highest metabolic rate at the time of operation was 75 per cent above normal, and the lowest was 12 per cent above normal.

The total mortality was 4 patients or 3.5 per cent.

During this period 140 cases of adenomata without hyperthyroidism or early primary hyperthyroidism or with a basal metabolic rate of 12 per cent or less were operated on with no mortality. These cases were all operated by either my associates, Dr. Wm. R. Clinton, Dr. L. Byron Ashley or myself.

HUMAN MILK, FACTORS IN ITS PRODUCTION

B. RAYMOND HOOBLER, M. D.
DETROIT, MICHIGAN.
(From the Children's Hospital of Michigan and Woman's Hospital and Infant's Home.)

Great advances have been made in the past decade in the care and feeding of infants and as a result, infant mortality has been considerably reduced for infants above a month of age. The mortality of the first month of life in spite of scientific feeding method and welfare work is still tremendous and remains the one impregnable strong hold which has not yet yielded. The pediatrists are quite in accord in feeding methods after the first month. But a glance at various text books shows a lack of unanimity as to how to begin and carry on through the first month. On one point they all agree, however, and that is at least during the first month of life the infant should have human milk if possible to obtain it, particularly the premature and those infants born under such handicaps as under-weight, syphilis or who have already failed to thrive on artificial feedings. It is from this group that the mortality figures received its largest quota.

It is a well established fact that the mortality of infants in general is greater when artificially fed, than when fed on human milk. If all infants under one month could receive human milk the dreaded mortality of that period of life would be greatly diminished. Is this too high a goal for which to strive? What factors stand in the way of its accomplishment?

Many mothers are able to nurse their babies for varying periods. From a hitherto unpublished study of one thousand mothers the writer found that 11.7 per cent were not nursed at all, 21.6 per cent to the end of the second month and 33 per cent to the end of the third month.

What were the reasons given by these 100 mothers for stopping nursing? Arranged in order of frequency they are as follows:

1. Milk failed (no apparent reason) 42.8%
2. Milk insufficient to nourish infant 20.2%
3. Mother too sick to nurse..... 18.0%
4. Mother became pregnant..... 11 %
5. Mother had to go to work..... 8 %

I have heard it charged against the present generation of mothers that they do not want to nurse their babies. Now and then one may find a mother who holds this view, but the vast majority desire to nurse and count it one of the greatest tragedies when they must submit their offspring to the uncertainties of artificial feeding.

It seems strange indeed that of all animal kind the human should be the least certain to furnish a food supply for its young. We are want to place the blame for this condition of things on to our present day civilization, and to modes of dressing, of living, of thinking. These may have some part in bringing about such a condition, but the writer believes it is largely due to a lack of understanding on the part of the profession of the essential factors in the production of human milk as is evidenced by the paucity of scientific studies published, covering this subject. We are put to shame by the workers in the dairy industry whose scientific studies in bovine milk production are of the highest order covering every phase of the subject. Most of what is taught and practiced today as regards human milk production has been handed down from grandmother to mother and is based only on empiricism which is only generalizing from limited facts and to which one of Josh Billings' apt sayings might well be applied, "It's not so much my ignorance that bothers me, but it's knowing so many things which ain't so."

Several years ago the writer conducted an experiment based on one of the classical studies published by Hart and Humphrey, Jr. Bio. Chem. 1925 :21. Dept. of Wisconsin University and was able to confirm for humans what was well known to dairymen, viz., that if milk production is to be properly maintained a diet richer in protein than the average diet must be given the nursing

mother. The observations covering protein, were published in the Am. Jr. Diseases of Children, Aug. 1917, vol. XIV pp. 105-112. The summary of that paper is repeated here:

1. A nutritive ratio of 1:6 or narrower seems best adapted to the need of nursing mothers. (This ratio refers to the proportion of digestible protein to digestible fat and carbohydrate.
2. Animal protein is more suitable than vegetable protein in supplying nitrogen for milk and maintenance of nitrogen balance.
3. The protein derived from nuts when fed with other vegetable protein is suitable for supplying milk protein and for maintaining nitrogen equilibrium.
4. A diet composed exclusively of cereals, fruits and vegetables does not supply sufficient protein for elaborating milk protein and causes a severe drain on tissues of the mother.
5. Of the various forms of animal protein, that which is derived from cow's milk seems particularly suitable for the production of human milk protein, as well as for the preservation of maternal tissues.

A more general discussion of diet was published in the Jr. Am. M. A., Aug. 1917 vol. LXIX pp. 442-425, conclusion of that paper not included in the first, are repeated here:

1. A diet to be efficient must produce a sufficient quantity of milk, containing nutrition adequate to cause an increase in growth of offspring without impairing the tissues of the mother.
2. Diets containing from 2,600 to 2,900 calories in twenty-four hours produced better results than diets containing from 3,400 to 3,700 calories. It is of no avail to overfeed in hope of maintaining or increasing the milk supply.
3. Diets containing 2,000 calories or less cannot protect maternal tissues and at the same time produce sufficient milk. A nutritive ration of less than 1:6 gave the best results.

Since the publication of these papers further observations have been made.

The first relates to the disposition of the relatively high proportion of protein which is fed in the diets recommended. The following two charts (Nos. one and two) show the channels into which the food introgen is diverted under diets containing different proportions of protein. It shows clearly how on the narrower ratios, nitrogen is retained while on the wider ratios nitrogen is withdrawn from the body. It is clear that constant withdrawal of nitrogen from the body cannot last and sooner or later the nitrogen for milk building must be cut off and in consequence milk supply lessened. This is clearly demonstrated in these observations.

Chart 3—On periods of ample protein ratio (1-4 up to 1-6) the caloric value of milk averaged 1,200 calories daily: When protein was reduced to 1-9 and 1-13, ratio the average caloric value dropped to 960 per day. Even the food intake was increased.

On narrow ratios, average was 1000 calories daily, while on wider ratios it dropped to 900 calories daily.

Next to ample protein supply the daily fluid intake plays an important part in milk production.

It is quite commonly believed by the laity and by a large number of physicians that any increase in fluid intake ought ordinarily to be followed by an increase in the production of milk. This was found to be true up to a certain point and then quite the reverse happened.

With quantities of water ranging from 2,300 cc. to 2,700, the quantity of milk produced remained at an average.

In diets with fluid intake varying from 2,700 cc. to 3,300 cc. the quantity of milk was markedly increased irrespective of caloric intake or of protein to carbohydrate fat ratio. In some cases the production was increased 300 to 400 cc. daily.

With the fluid intake still further increased from 3,300 cc. to 3,900 cc., there was a marked fall in the average daily quantity of milk even far below the average.

Thus it can be seen that an increase in daily fluid intake above three quarts was accompanied by a drope as great as 300 cc. or approximately 10 ounces of milk.

SUMMARY

1. A nursing mother should not eat less than 2,000 calories, nor more than 3,000 calories in 24 hours.
2. Three quarts of fluids a day is the maximum which should be taken by a nursing mother. If more is taken it usually causes an increase in weight of mother with a lessened quantity of milk produced.

SOME PROBLEMS IN GYNO-PLASTIC SURGERY*

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Plastic restoration of the injured birth canal, while only a part of gyno-plastic surgery, presents many problems, and it is our purpose on this occasion to consider a few of them.

Modern obstetrics and modern gyno-plastic surgery vouchsafe to the child-bearing woman a degree of health and efficiency quite comparable to that of the female who is denied the inestimable privileges of motherhood.

In actual practice, however, this ideal is not realized, because the average woman is unable to avail herself of the services of a trained obstetrician and gyno-plastic surgeon and as a result many women suffer from injuries to the genital tract which are not properly repaired and which produce increasing discomfort and invalidism as the years go by. The demands upon the modern Amercian mother and the complexity of modern American life, require the maximum amount of health and efficiency, the maintenance of which in many instances depends upon the character of the services of the obstetrician and obstetrical surgeon.

It has been estimated that fully 50 per cent of all women who visit all doctors' offices, suffer to a greater or lesser degree from injury due to childbirth. Fortunately, the majority of these injuries are not so

*Read before Section on Gynocology and Obstetrics, Michigan State Medical Society, Mt. Clemens, September, 1924.

severe as to require treatment, but every woman who has borne children, should be submitted to a periodical gynocological examination, so that the results of childbirth can be kept under observation.

We believe that to understand the principles of plastic surgery on the birth canal, one should have a practical and intimate knowledge of the anatomy of the pelvic floor and the other structures which support the pelvic viscera. In addition to a knowledge of the normal anatomy, one should understand the changes that these structures undergo during pregnancy, during labor, and after labor.

We have observed that the various text book descriptions of the levator ani group and the so-called pelvic fascia, are so confusing and contradictory that it is extremely difficult for the surgeon to visualize their anatomy with a clarity which is necessary for accurate surgical plastic procedure. Cameron, of Manchester, and other anatomists state that the muscles of the pelvic floor in man are now regarded as vestigial structures, that the levator group in the tailed mammals were used as adductors and flexors of the tail, and that with the assumption of the upright position in man, the function of these muscles changed. Furthermore, it has been brought out by Bland Sutton and others that when a muscle either from morphological or pathological reasons, changes its function, the contractile part is diminished and takes on the character of fibrous or ligamentous tissue. It has been observed by G. Elliott Smith and other anatomists that the muscles which form the pelvic floor, vary considerably in development in different individuals and that they not infrequently contain very little muscular tissue.

After spending considerable time and study in an endeavor to obtain a clearer understanding of the anatomy of the pelvic floor, and so-called pelvic fascia, we have come to the conclusion that for practical purposes, the following description is a satisfactory one, and we shall endeavor to demonstrate our anatomical conception of these structures by use of lantern slides.

The pelvic basin is practically lined by the levator ani muscle, which muscle is covered on both its external and internal surface with fascia. As above mentioned, owing to a state of regression, the proportion of muscle and fascia in this structure differs in different individuals. In some instances there is a full muscular development, and in others the fascia predominates.

Attached to the levator ani fascia at the sides and at the posterior and anterior aspects of the pelvic wall, are various forms of connective tissue which extend to the pelvic viscera and which help support these organs and helps to maintain them in a normal position. This connective tissue which is represented laterally by the parametrium, anteriorally by the so-called utero-pubic fascia, posteriorly by the sacro-iliac ligaments, plays an important part in the support of the pelvic viscera. Cameron accentuates the importance of the pari-vascular fascia which surrounds the blood vessels as they pass from the parietal walls of the pelvis, to supply the pelvic viscera. He believes that this connective tissue contributes an important part towards supporting these organs. The round ligaments and broad ligaments are also connective tissue structures which may have some slight influence in maintaining pelvic support, but this influence is negligible.

When one visualizes a woman standing in the upright position and one looks into dissected pelvis from above, the levator ani presents the appearance of a thin, musculofascial sling which acts as a diaphragm which covers the opening in the bottom of the bony pelvis. The natural orifices, the urethra, vagina and rectum perforate this diaphragm, in which we include for practical purposes the urogenital trigoue.

If one looks at the dissected levator ani, visualizing the woman in the exaggerated lithotomy position, the iliococcygeus portion of this muscle on either side of the median line, spreads out from the coccyx and median raphe like the wings of a butterfly, while the pubo-coccyceus portion which is also thin, presents a ribbon-like appearance and its pillars on either side are intimately connected with the vagina and rectum as they pass backwards and attach themselves to the coccyx. This latter portion of the levator muscle is almost horizontal when the woman is in the upright position. This diaphragm the levatores ani constitutes the chief support of the pelvic viscera.

During pregnancy there is an hypertrophy of the structures which constitutes the pelvic floor and of the connective tissue which supports the pelvic viscera, and in passing it may be stated that there are women in whom this supportive structure is congenitally weak. We have recently seen a woman who had never borne children, who suffers from a marked degree of cystocele and prolapse. Williams states that during the first stage of labor the bag of water distends the upper part of the vagina, and after its rupture the presenting part, which is usually

the head, continues this distension. As the head advances through the hiatus genitalis, the utero-pubic and utero-sacral ligaments are subjected to considerable stretching, and in many instances these supporting structures are actually ruptured. This is particularly so if the head is unusually large and hard. The head stretches the pelvic fascia over the levator ani and may produce, according to DeLee, a real diastasis of the levator pillars, such as obtains in the rectiabdominalis. Studdiford states that the involuntary muscular fibres constituting the perineal body increase in size and strength during pregnancy and that they permit the pelvic floor to dilate during the time of labor, after which they undergo involuntary changes. DeLee states that as the head advances it stretches the vagina radially and longitudinally and it sometimes wipes the vagina and rectum off their fascial anchoring, and that the fascia between the vagina and bladder is stretched or torn, so that the anchorage of the bladder to the upper surface of the levator ani fascia and posterior surface of the pubes is torn.

Anspach states that during the second stage of labor as the head advances through the parturient canal, lacerations of the vagina and perineum may occur in one or two ways—the advancing head may strip the vaginal wall loose from its underlying attachments and push it bodily in front of it, or the muscular loops and fascia that surround the parturient canal and the vaginal outlet, may be so greatly over-stretched as to be completely severed, the tear either passing through the mucus membrane to the surface or being entirely submucus and not communicating with the exterior. Either form of tear may take place in the vaginal sulci or in the median line. When it occurs in the median line, it may involve the perineal body alone, or it may pass directly through the perineal body and the external sphincter into the rectum.

It is obvious that labor produces sufficient stretching, tearing and retraction of the musculo-fascial supports of the pelvic viscera to produce not only the minor degrees of injury to the birth canal, but to produce conditions which result in the extensive forms of cystocele, uterine prolapse and rectocele.

CYSTOCELE AND RECTOCELE

We desire to consider particularly the surgical repair of cystocele and rectocele which forms such an important branch of gynoplastic surgery, and the proper management of which requires a degree of skill not exceeded in any other department of surgical work.

Our conception of cystocele which is the generally accepted one, is that it is a hernia of the bladder which usually results from trauma incident to child-birth, and which is due to a stretching and actual rupture of the pelvic fascia and other connective tissue which supports the bladder and uterus. And we believe with Watkins that the lesion which occurs is situated in the vescio-vaginal structures near the cervical attachment, and that the rupture in these structures occurs laterally rather than anterio-posterially. As result of this actual lesion and relaxation of the bladder supports, the hernial opening gradually increases, and cystocele varying in size from that of the very first degree to that of a golf ball, a billiard ball, a base ball, or even a croquet ball, may result. The operative treatment in these cases consists in the cure of the hernia on the well-known principles which obtain in the cure of hernia in other parts of the body, effecting the restoration of the bladder and urethra to their normal positions.

Our conception of rectocele is the same as that of cystocele and with Watkins we agree that in high rectocele there is an injury to the recto-vaginal connective tissue and that a hernia is produced which small in the beginning, becomes larger as the result of stretching and retraction of the tissue.

The surgical management of the various forms of cystocele is a big problem in itself, and depends upon the age of the patient, the social condition, and many other circumstances. When the young child-bearing woman presents herself for examination, if we find that the cystocele is very small and that there is no incontinence of urine, or any other discomfort as the result of this birth injury, we do not advise an operative procedure, but we do advise that the patient report for examination every three to six months so that this condition can be kept under observation. It is surprising to observe by periodical examination how much improvement will occur in the relaxation due to some of these birth canal injuries when it is possible for the mother to take excellent care of herself, obtain the proper amount of rest and food, and thereby restore, as it were, her tissue tone. However, if the cystocele which may be causing incontinence and discomfort, approaches the size of a golf ball, we advise a plastic restoration which will in no way hazard her possibilities for future child-bearing. In our own practice we have largely abandoned the interposition operation, even in women who have passed the child-bearing period. The method of Watkins appears to us to be an

excellent one in the management of the larger cystocele. His operation is described as follows: The anterior-vaginal wall is dissected from the bladder and the thin mucus membrane over the fascia is "skinned" off very carefully with a sharp scalpel; the hernial opening is located and is closed by suturing the fascia to the cervix sufficiently high to restore the bladder to its normal position. In cases where there is a prolapsus of the uterus the broad ligaments are cut from the cervix and are attached in front of it, which procedure tilts back the cervix and advances fundus of the uterus.

George Gray Ward has also a method of treating cystocele which appeals to us, and which consists in splitting the anterior wall, exposing the "bladder pillars" or utero-pubic fascia, separating the bladder freely from the cervix and placing it in its normal position. He closes the hernial opening by ligatures which pass through the vaginal mucosa, "bladder pillars" and cervix opposite the internal os. In cases of prolapsus he uses a mattress suture which approximates the bases of the broad ligaments with the view of tilting the cervix fascia.

Watkins' method of curing of high rectocele consists of a similar procedure based on the same principles on which he treats large cystocele. He makes a narrow dissection of the vaginal mucosa along the entire length of the rectcele and peels off the mucus membrane from the fascia and closes the hernial opening by suturing the fascia to the base of the broad ligaments on either side. By the use of additional sutures he effects a firm closure of the hernia.

There are many other methods of plastic restoration in cystocele and rectocele and they are all based upon the principle of curing a hernia which results from stretching and tearing of the connective tissue supports of the pelvis viscera. The question of opening the abdomen in cases of uterine prolapse accompanying cystocele and rectocele, will not be considered at this time excepting to state that it should be done if vaginal plastic restoration is not sufficient.

There are some important points in gynoplastic technic which may be well to accentuate. In the first place this type of surgical work must be done carefully and deliberately. Certain procedures in gyno-plastic surgery are major, and no details must be omitted if the surgeon is to obtain the most successful final results.

A very careful approximation of tissues should always be effected, and the smallest ligature material commensurate with satisfactory tensile strength, and interrupted preferably, is desirable.

Scar tissue does not heal well when approximated and if ligatures are too tightly tied sloughing will occur which will cause discomfort and pain.

In extensive plastic work on the birth canal, one must continually and carefully watch the amount of hemorhage and the patient should never be permitted to leave the table without the absolute certainty that all hemorrhage has been controlled. We have seen death result from hemorrhage after extensive pelvic plastic work in which the patient had been permitted to ooze continually through a prolonged operation.

At the conclusion of our plastic work we routinely insert a self-retaining "Mushroom" ended soft rubber catheter into the bladder and allow it to remain there for 4 or 5 days. We have found this procedure most satisfactory for we believe that it minimizes the danger of infection and that it saves the patient from a good deal of discomfort.

When it is necessary to open the abdomen in addition to vaginal plastic work, the patient's general condition should be properly evaluated, her blood pressure should be taken, and a careful consultation should be held with the anaesthetist before going on with the two stage operation.

I recall the case of an extremely weak and emaciated patient who required a Sturmdorf tracheloplasty, a perineorraphy and a tubal sterilization. We performed three separate operations for three conditions, and believe that the woman would have died had her plastic work been done in any other way.

We deem it timely to state that in our opinion many cases of cystocele and rectocele and many minor injuries to the birth canal, may be prevented by a policy of watchful waiting during labor, and by the intelligent use of forceps and only when their application is indicated.

Furthermore, it is our custom to always empty the bladder by catheterization at intervals during labor and just before the child is delivered; and this, we believe, to be a valuable prophylactic aid.

When the perineum does not dilate readily, a carefully performed and accurately repaired episiotomy will to some extent prevent birth injuries, and in our own personal experience, we have observed that marked cystocele and marked rectocele rarely occur if the above measures are taken.

CONCLUSION

(1) Modern obstetrics and modern gynoplastic surgery make it possible for the child-bearing woman to return to her family

and to society in a state of health and efficiency.

(2) Plastic restoration of the birth canal requires on the part of the surgeon an intimate knowledge of the normal anatomy of the pelvic floor and of the structures which support the pelvic viscera; furthermore, he should be familiar with the changes that these structures undergo during pregnancy, during labor and after labor.

(3) Every mother during her child bearing period should be submitted to periodical gynocological examination, so that the results of birth injuries can be under observation and so that plastic restoration, or other treatment can be accomplished when it is found necessary.

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THE PRE-NATAL MATERNAL HEART*

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The question of whether a diseased maternal heart will carry on through pregnancy is and has been one of the problems of the practitioner. It should also be our consideration whether we can prevent an early or mild lesion of the heart or great vessels from becoming more severe during this period of strain upon the heart. To this end the early diagnosis of pathological conditions of the heart and aorta becomes one of the important points of pre-natal examination.

A pre-natal patient with subjective symptoms of precordial pain, increasing dyspnea or chronic cough gives us early indications of cardiac disturbance. Swelling of the lower extremities and enlargement of the liver occuring as they do in the pregnant woman independent of heart condition are not always a help to us in our estimation of the cardiac ability. Not only the heart should be examined for cardiac disease, but also a general survey of other conditions which may effect the heart, such as high blood pressure, the various toxemias, focal infections, syphilis, and the every day habits including the work the patient may be doing, should be taken into consideration.

For a proper heart examination the patient is exposed to the waist. Notice is taken of abnormal pulsations and the position of the apex beat as well as palpitation of the heart and pulse. Percusing for size and shape, and ausculation of heart and lungs, functional tests and X-ray examinations in all cases where there is a slightest doubt of the condition, are carried out at our clinic, in an effort to give us correct diagnosis and prognosis.

Our first and most important problem is to differentiate the functional murmur from one which is the result of some pathological condition. Functional murmurs are very common, occurring at any period during pregnancy, and though usually described as being soft in character, systolic in time and occupying the pulmonic area, many are much more baffling, being heard anywhere in the precordia. Early mitral regurgitation, aortitis and small aneurisms are the chief obstacles, often giving us no definite findings except the systolic murmur. The presence of a syphilitic or rheumatic history, nephritis, or hyperthyroidism, as well as the size and condition of the heart, are points required before some of the murmurs can be classified.

No matter what the type of heart, whether it be mitral or aortic valvular disease, hypertrophy from high blood pressure, thyroid disease, or whether it is syphilitic or rheumatic in origin, its reserve power as shown by response to exercise is important in giving us our estimation of the heart's present ability. We judge the heart by the functional reserve power, the amount of hypertrophy, its origin and rate of progress, and rate and rhythm of heart actions.

During the year 1923 at Station 1 of the Pre-natal clinic of the Detroit Department of Health, with an attendance of 1,347 new pre-natal patients there were some 151 heart conditions of various severity classified as follows:

Functional murmurs	80 cases
Mitral regurgitation	25 cases
Mitral stenosis	5 cases
Combined mitral regurgitation and mitral stenosis	2 cases
Aortic regurgitation	2 cases
Aortic stenosis	2 cases
Aortitis (Syphilitic)	3 cases
Myocarditis	2 cases
Sinus arrhythymias (marked)	4 cases

*Pre-Natal Clinic—Detroit Department of Health.

Extra systoles	5 cases
Heart block	3 cases
Tachycardias (simple)	2 cases
Hyperthyroid hearts	5 cases
Aneurism	2 cases
Hypertrophy of heart secondary to nephritis	3 cases
Hearts not diagnosed	5 cases

A few histories follow:

CASE HISTORIES

Mrs. H. S.—R. P. O. N. 2—Para 8. History negative, Wassermann negative, blood pressure 128-80. Physical examination—mouth, diseased teeth; throat, diseased and hypertrophied tonsils; heart, systolic murmur at the apex, transmitted over the entire precordia. Pulmonary second accentuated. Heart enlarged outward 2 c.m. beyond mid-clavicular line. Functional test, good. No signs of decompensation.

Abdomen—Diastasis recti muscles.

Vaginal—6-8 weeks pregnant. Confirmed by sugar test.

Diagnosis—Mitral insufficiency, cardiac hypertrophy, pregnancy.

Progress—Bi-monthly visits showed no unusual changes until the sixth month when she complained of moderate dyspnoea. Digitalis and limitation of activity were prescribed. Outcome, normal delivery, 20 minutes labor. Birthweight 6 lb. 4½ oz. Post-natal examination shows general heart findings unchanged.

Mrs. R. S.—4—Para 4. History negative. Wassermann negative. Blood pressure 120-72.

Physical Examination—Throat, bilateral moderately enlarged cystic thyroid. Heart, double murmur. Heart best over base of heart, transmitted over entire precordia and into the large vessels of the neck.

Heart enlarged moderately to the left. Heart function fair. X-ray of heart showed transverse heart with some widening of the aorta. There was an unusual prominence of the arch. Under fluoroscopic observation marked pulsation was noticed in this area. The shape was of double mitral lesion. Findings both fluroscopically and by the steroscopic films was suggestive of a small aneurism of the arch of the aorta.

Liver—Enlarged two finger breadths.

Abdomen—28 weeks pregnant.

Progress—No unusual changes during bimonthly visits.

Outcome—Confined at Herman Kiefer Hospital. Delivery normal, 6 hours and 50 minutes. Baby's weight 5 lb and 15½ oz. Post-natal examination—no change in physical findings of circulatory system.

Mrs. S. K.—R 48—Para 14. History claims to have had chronic bronchitis for past seven years, during this time she has had a persistent cough, at the present time is receiving treatment for syphilis at the venereal clinic. Wassermann ++++. Blood pressure 130-80.

Physical Examination—Lungs, broncho vesincular breathing with dry crackling rales at the end of inspiration over the entire chest.

Heart—Pre-systolic murmur heard best at the fourth left intercostal space transmitted over the entire precordia. There is a marked enlargement of the heart to the left. Heart functional test poor as shown below. Before exercise, pulse 96 regular. After exercise, pulse 134 regular. One minute rest, pulse 134 regular. Two minute rest, pulse 110 regular. Four minute rest, pulse 89 regular.

X-ray report June 27, 1923—Extreme enlargement of the heart to the left and widening of the mid-sternal shadow. Fluroscopic examination of the media-stinum shows an expansible mass which coincides with the arch of the aorta. The mass protrudes to the left and shows marked pulsation.

Diagnosis—Aneurism of the arch of the aorta.

Progress notes—During the first six months of pregnancy, complaining of a persistent cough and some dyspnoea. At six months had sharp severe pains over precordia following effort. Digitalis and complete bed rest prescribed at this time. During these months there was a gradual increase in blood pressure until the ninth month when blood pressure was 170-95.

Outcome—Patient confined at Herman Keifer Hospital September, 1923. Delivery—R. O. A. Labor twelve hours, baby living, weight 6 lbs. 7 oz. Two months later patient died suddenly at her home due to rupture of aneurism.

TREATMENT OF HEART DISEASE IN PREGNANCY

Our cardiac cases are divided into three classes for purposes of treatment. First—Those cases of functional disturbances requiring other than ordinary prenatal care and reassurances. These include the sinus arrythmias, the functional murmurs and simple tachychardias. The second class are those cases where there is a definite organic heart condition, but with compensation normal. In this class we include not only the organic valvular lesion, but also the conditions such as the myocardial degeneration resulting from hyperthyroid states, focal infections or the various toxemias of pregnancy also the nephritic hearts and diseases of the large vessels. This class of cases requires careful observation at each prenatal visit, with a diminution so far as possible, of all effort on the part of the patient. She is instructed regarding the extent of her household duty. Syphilis is actively treated in all our cases from the first visit. Toxemias are combated with diet and elimination, thyroid toxemias with a rest—mental and physical. Diets are given all cardiac cases in an effort to remove all abdominal over distension and flatulence. Cases of this class generally go on through pregnancy and to normal delivery in good condition.

The third clas of cases are those with some degree of decompensation, where cardiac symptoms increase as precordial pain, increasing dyspnoea, oedema, increase in the irregularity of the pulse, or enlargement of the heart, or at the first sign of pulmonary oedema, such as moist crepitations at the base of the lung they are immediately sent to the hospital where complete control of the patient is secured. Absolute rest in bed, elimination, and digitalization is carried out. Active interference of pregnancy is seldom required. Forceps are indicated in this class of cases to relieve the mothers effort as soon as there is complete dilation.

With early and constant observation during the prenatal period, the care of a cardiac disturbance is usually satisfactory. We have had no mortality during the prenatal period or at the period of delivery from circulatory disturbances.

One case, No. 159, with severe mitral stenosis, died from cerebral embolism twenty days after delivery. Another case, No. 88, with marked cardiac decompensation, secondary to chronic nephritis, entered our clinic July 21, 1923, during the seventh month of gestation. Because of severity of the case she was immediately sent to Herman Kiefer Hospital, where labor was induced July 28, 1923. She improved rapidly and was discharged from the hospital. She became worse at home, entered Receiving Hospital August 29, 1923, where she died September 8, 1923, with a hospital diagnosis of chronic myocarditis and acute cardiac decompensation. The above cases together with the one reported above, dying from ruptured aneurism two month post-partum, remind us that all danger is not over after the confinement, and emphasizes the necessity for post-partum care in these cases.

THE TREND OF HEALTH EDUCATION AMONG SCHOOL CHILDREN

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There seems to have been five stages of health education among school children during the past twenty years. You are all familiar with the physiology text book stage, though this hardly deserves the name of health education. Physiology was taught as a pure science, with no idea of personal application, except those parts pertaining to ill effects of alcohol, tobacco and narcotics. Unfortunately, some schools have not yet outgrown this stage. I recently observed a lesson on the eye, the instructor talked about the re-ti-na of the eye, as unrelated to the personal hygiene of the eye as the lens of a camera.

Time will not permit me to trace fully the evolution of health education to its present status, but it is an evident fact that the evolution to its second stage was brought about by the Public Health Nurses and Physicians. It was the nurse and physician who, coming in contact with school children, found that many conditions contributing to poor school attendance were due to faulty health practices, such as insufficient sleep and rest, unwholesome food habits, lack of fresh air, etc. So the nurse undertook the colossal task of teaching the children by giving personal advice to children, concerning health habit formation and the correction of defects. The nurse gave health talks, conducted tooth-brush drills and, handkerchief drills. She was forced to make her entrance before the children a spectacular thing that should hold over until her next visit in a week, a month, or a year. This work was done necessarily in a very informal manner, and the children loved it, and responded splendidly.

But what was the most far reaching effect of these health talks? Through these talks was born to the teacher a new consciousness of education for life—for healthy living. She practiced health habits herself and found that they worked. She began to work with the children, helping them to form the good habits suggested by the nurse, and behold, she found that pupils attended school more regularly and did a higher grade of work. Now every teacher is eager to make a good record for herself through her class work and she will welcome anything that will help her to attain a better record. She found that the informal teaching of the nurse was more effective than the usual formal class room teaching. She became less formal in all of her teaching and again attained better results. The teacher thus began to follow up and supplement the health teaching of the nurse, marking the third stage in the evolution of health education.

Then a wonderful thing happened that gave a new impetus to health education throughout the country. So keen an interest in health education was being manifested by teachers and other health workers that in June, 1922, the American Child Health Association and the United States Bureau of Education, called a working conference of 100 health education specialists at Lake Mohonk, N. Y., the purpose of the conference to determine:

1. Who should teach health?
2. How should health be taught?
3. What should be taught in health?

After one week of intensive study some resolutions were unanimously adopted that have done more to standardize health education than any other single factor. The first question as to who should teach health was answered definitely. The classroom teacher is obviously the one to teach health because she has access to the children every day. The teacher must have the aid of nurse and physician to enable her to become a good teacher of health, but eventually teachers must be taught in the normal schools how to teach health to children. The second question: "How should health be taught?"

Shall we use a textbook, and teach health as physiology was taught? Decidedly no! Health education cannot be confined to one place and time, it must permeate the whole curriculum by making it a part of the instruction in all other subjects. The third question: "What should be taught in health?" was answered in only a general way. In the first three grades emphasis should be laid on health habit formation in relation to food, rest, exercise, cleanliness, posture, air, clothing, and mental attitudes. In its first stages health education should be largely a matter of unconscious response to the right kind of environment. Later on the children must be given the reasons for health practice, and only as much of the pure science of anatomy and physiology as shall lead to a better understanding of the underlying principles of healthy living.

Following the Lake Mohonk conference The National Education Association defined the seven cardinal objectives of education. Notice the order in which these appear:

1. Health.
2. Command of the fundamental processes.
3. Worthy home membership.
4. Vocational guidance.
5. Citizenship.
6. Avocation, or proper use of leisure time.
7. Ethical character.

Why was health placed first among the seven cardinal objectives of education? Obviously because none of the other six objectives could be fully attained without health. This marks the last stage in health education, where health takes its rightful place to be taught not by nurses alone, not by nurses with the help of teachers, not by just the interested teacher, but by every teacher in the school system, not in a haphazard manner, but in a well defined sequence with even more care than the fundamental processes of the three R's. Today the up-to-date schools are working on a health education curriculum that shall meet the needs of the children in their own communities. This curriculum is covered, not as a separate subject, but as a part of the lesson in reading, writing, arithmetic, English, drawing, music, biology, nature study, the practical sciences, and the social sciences, like civics, history and geography.

A KINDERGARTEN PROGRAM

Habit formation:
- Removal of wraps, rubbers, etc.
- Proper use of toilet.
- Washing hands before taking food.
- Use of handkerchief, care of nose, covering of mouth when sneezing or coughing.
- Cleaning of nails with toothpick.
- Avoid putting things in mouth.
- Learning to drink slowly.
- Daily rest period.

Devices, Posters:
- Inspection posters.
- Trip to Heatherland.
- Weight chart.
- The cow's friends (all the children who drank milk).

Songs:
- "Good Morning."
- "This is the Way We Wash Our Face."

Stories:
- "Why Children Did Not Like to Play With Johnnie."
- "Big Brother."

Rhymes:
- Suggested by Metropolitan Mother Goose.

School Lunch:
- Milk and wafers.
- Made a social function, leisurely.
- Often music with lunch.

Rest Period:
- Directly following lunch.
- Lying prone on paper, blinds drawn, soft music.

Sleep Project:
- Clock faces made by children and taken home to tell the time to retire.

Doll Houses:
- Construction with large blocks.
- Plenty of light and air.
- Bathroom, cla y tub, tiny toilet seat.
- Sleeping room windows always open.
- Doll undressed, bathed, teeth cleaned.
- Put to bed at proper time.
- Washed and dressed, teeth cleaned in morning.
- Doll rests on davenport after lunch.
- General house cleaning.
- Washing and ironing for clothing and bedding.
- Proper airing and making of beds.

Conversation Period:
- Rules of the game.
- Care and protection of the body.
- Milk, fruit, vegetables.
- Care of hair, bathing, teeth.

Picture Studies:
- Pictures of happy children,—why they are happy.
- Easter bunnies eating green vegetables.

Safety First:
- Street car of blocks. Traffic cop.

Posture:
- Choice of chair of right height.

Mental Health:
- Try to create right environment, avoid hurry, fear, shame.

HEALTH OUTLINES IN THIRD GRADE

- General cleanliness.
- Care of teeth.
- Care of eyes.

Food:
- Menus—
  - Wheat and other grains (geography correlation).
  - Fish, stock raising, dairying.
  - Milk at school.

Chidlren of Other Lands:
- Holland—their food.
- Eskimos—their food.
- Jerusalem; the wise men—their food.

Clothing:
- Steriopticon on wool, cotton, silk, leather, fur.

Posture:
Blackboard sketches.
Exercise:
Trunk bending, deep breathing arm and leg exercises.
Poems by:
James Whitcomb Riley.
Eugene Field.
Robert Louis Stevenson.
Like to Do Stories.
The girl Who Loved Mercy, Florence Nightingale.
Water:
Four glasses a day.
Health Club:
To help brothers and sisters at home to form good habits.
Safety Club:
Rules of Safety.
Rest:
Relaxation at school, and at home.
Goitre Prevention:
All pupils with goitre are taking some form of iodine, and four of those without are taking it as a preventive.
Happiness:
Fostered by doing for others.

SOME INTERESTING GEOGRAPHY CORRELATIONS FOR THE FOURTH GRADE

General Aim:
To show that people live and act in certain ways as a response to certain geographic conditions.
1. Typical regions of the world were studied.
2. Imaginary journeys were taken.

A TRIP TO ESKIMO-LAND

Home and Foods:
Not sufficient air in houses.
Air and sunlight bring checrfulness.
Sun is purifier of the air.
Some seasons of the year sun never shines.
Conclusions:
We are healthier when we are happy.
Sunlight makes us happy.
Sunlight makes healthful foods grow.

A TRIP TO THE DESERT

Discussion of Oasis:
Depth of spring has much to do with purity.
Natural filtration.
In Choosing a Home, consider:
1. A place that has good water.
2. A place that has deep wells, or
3. Use filtered water.
4. Vote for pure water for your city.

A TRIP TO CENTRAL AFRICA

Story of Livingston was read and discussed.
Conclusions:
Not a very healthful place in which to live because
1. It rains too much.
2. Dampness and heat make one feel tired and lazy.
3. Breeds mosquitoes, spreaods malaria.
4. Swamps in Saginaw breed mosquitoes.
5. Swamps are oiled every spring to kill mosquitoes.
6. Swamps should be drained whenever possible.

STUDY OF THE DUTCH

Cleanliness:
1. In the home.
2. In the streets.
3. Clean about work.
4. Especially clean with animals—cows.
5. Clean cows give better milk.
6. In city milk is pasteurized.
7. Bottles are washed by machinery.
8. What does Health Officer do to Help Keep City Clean.

RESULTS

Dental corections..100%
Tonsils .....Four corrections and four promises for summer corestions,
Glasses 100%

Formation of health habits.
Contest throughout the building, dental corrections.
Toxin-antitoxin given to eighteen children.
Thirteen children vaccinated this year.
Weight up, to height, splendid results tabulated.

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A HEALTH PROJECT IN A FIFTH GRADE, AS WORKED OUT BY MISS MURPHY. CIVIC CLUB

Aim:
1. To make every child in school and home as healthy as possible in body and speech.
2. To encourage health habits at home and at school.

Pledge:
I pledge attention to my health,
To keep my body sound is wealth.
I promise cleanliness today
Shall start me smiling on my way.
Committees:
Information.
Printing.
Morning Inspection.
Athletic.
Circulating.
Health in the home.
Health picture.
Information Cimmittee:
To find out all they can about health and place books and information on bulletin and in library.
Printing Committee:
Printed signs for posters.
Made health movie.
Made book covers.
Inspection Committee:
One child in each row made inspection.
Inspectors wore badges made in art class.
Sang health songs during inspection.
Base ball diamond used for record keeping, home run for perfcct score.
Athletic Committee:
Games and outdoor sports.
In charge of intermissions.
In charge of rest periods.

Circulating Committee:

Gave health talks to other rooms.
Taught songs to first grade pupils.
Gave health demonstrations in other rooms.
Helped with parent-teacher program.

Health in the Home Committee:

Planned Parent-Teacher program.
Kept check-up on home habit formation.
Invited Health Officer and Nurse to speak.
Presided at Parent-Teacher meeting and introduced speakers.

Health Picture Committee:

Originated Health Movie and put it on in every grade.
Put on health program at school assembly.

WRITTEN ENGLISH COMPOSITIONS

"On the Road to Health."

Many people in our room are healthy. Some are under weight. Those that are under weight are not drinking coffee or tea, but instead are drinking milk or cocoa. I think by the end of the month every one in our room will be healthy.

"How to Keep Our Teeth in Good Condition."

To keep your teeth in good condition brush them at least once a day. Go to the dentist and have him clean your teeth so they do not decay. Eat lots of vegetables and coarse food. Do not bite hard things, as nuts and hard candy. Drink plenty of milk to keep your teeth sound. If you do all these things for your teeth you will always have good, strong, and white teeth.

"What a Tooth Brush is For."

A tooth brush is to brush your teeth, and not to brush your dollie's hair or to wash your hands with, as some little folks do. Keep your teeth pearly. I am trying to, are you?

"Which Means More, Money or Teeth."

Teeth means more than money, for if you lose a dollar you can get another, but if you lose a tooth it is gone forever. So keep your teeth clean at the danger line or where the teeth meet the gums.

:"My Hardest Health Habit."

"Drinking milk, but not tea or coffee," is my hardest health habit. Every week that I drink milk but not tea or coffee I get a foot ball on the chart. When ten weeks were ended we saw how many had ten foot balls. The ones that have ten foot balls are called a star foot ball player. I am a star foot ball player. It was hard work, but I won just the same.

"My Hardest Health Rule."

When we started our health work I never could keep the rule of brushing my teeth at least once a day. I soon got used to it and now brush them twice a day. I hope during vacation I will brush them just as often even if I haven't somebody to check me each day.

"The Improvement."

Our health has improved a great deal from the time we started. We all are healthy and strong and all have been to the dentist. All of us follow the health rules, and report earnestly. We find ourselves much happier by following the health rule.

"Health Rule During Vacation."

During summer vacation I am going to try to be well and happy. I am going to make a chart and check up every day. I hope the other children will keep the health rules, too.

HEALTH LAND PRESS

A second grader used a little hand printing press, and wrote the following stories, in one inch lettering and placed them on the school bulletin.

BOWEL MOVEMENT

You should eat good food, but you must also get rid of what is left in the bowels. If you can get in the habit of moving the bowels thoroughly twice a day—after breakfast and after supper—so much the better.

Food is the best thing to make your bowels move. That is one reason that you need foods that fill you like cabbage, beets, onions, and carrots.

Some food which make the bowels move freely are: figs, fruits, vegetables, butter and cream.

WATER

We cannot live without water. Water helps to change our food into blood. Water will enable us to live, if nothing else is to be had for a number of days.

We get rid of a great deal of water all the time, so we must drink much pure water.

Drink at least four glasses a day. It is better to drink six or eight.

Does your body get enough water?

These are the charts which I used for reading lessons. Each chart was left up for about a week. The children enjoyed reading the lessons to each other between bells.

JACK

This is Jack.
He went to bed at seven.
He sleeps with the window open because he wants to be healthy.
Jack knows that sleeping will bring good health.
Do you go to bed at seven?
Do you sleep with your window open?

EATING

Many people do not eat the right kind of food.

In order to have healthy stomachs we must be careful what kinds of food we eat, how we eat and when we eat.

We must eat vegetables every day.

Carrots and lettuce are very good for us. They give us iron.

Oral Lauguage Work—The following story was made by a first grade child just from looking at a silhouette.

"The Ice Man."

The ice man is taking ice to a lady. They want ice to make ice cream. He has printed on his wagon—Ice—so the people will know that he has ice. Then they will go and get ice from him. The man takes the ice in the house.

The man has two horses, Blackie and Black Beauty. They must be twins because they are both black and the same size.

The people want ice to keep their vegetables fresh and milk from getting sour. They want the tomatoes and celery to be good.

We use ice to make ice cream. One time mother, Bobby and I made some. When Daddy came home we gave him some. I just love pink ice cream. Ice cream is healthy for us.

—Dorothy Mitchell.

SIGNIFICANCE OF THE COLLOIDAL PROPERTIES OF GELATIN IN SPECIAL DIETARIES

THOMAS B. DOWNEY, Ph. D.[1]

An examination of the dietetic possibilities of gelatin from a chemico-physiological standpoint reveals a number of properties which should make this unique food product a valuable addition to special dietaries, par-

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ticularly those in which milk forms the sole or major portion. In such dietaries gelatin functions as a protein food to the extent of the utilization of its amino acids by the body and in addition possesses marked activity as a protective colloid and emulsifying agent. Practical observations in clinics and hospitals as well as experimental work in laboratories indicate that these characteristic properties of gelatin as a colloidal substance exert a most significant influence in promoting digestion and absorption of certain types of foods.

The importance of this colloidal activity of gelatin where fed in conjunction with dairy products has been demonstrated by the writer in feeding tests with the albino rat. Shortly after weaning, the young from several litters were divided into two groups; one group received pasteurized whole milk as its sole diet, the other pasteurized whole milk containing one per cent of gelatin. Observations extending over a period of six months showed that the growth and physical well being of the group fed on gelatinated milk was markedly superior to animals fed on the plain milk diet. The increased growth was accomplished on smaller food consumptions. In fact, during the early growth period for equivalent gains in body weight the animals on gelatinated milk consumed about 23 per cent less food than the group on plain milk.

Another striking illustration is found in the writer's experiments with ice cream. Over a period of seven weeks it was observed that a group of rats fed on an exclusive diet of ice cream containing one per cent of gelatin gained no less than 25 per cent more in body weight than was the case with their brothers and sisters whose diet was plain ice cream. For equivalent gains in body weight, the food consumptions of the group few on the gelatin-containing ice cream was much less. Smaller percentages of gelatin resulted in proportionate improvements. It is important to note in this connection that the better nutritional status of the gelatin ice cream group after a number of months on the diet was reflected in continued health and growth, and in increased bone development and reproduction in several cases.

It should not be presumed that the observed improvements of the dairy products are due entirely to the added protein value of the gelatin, but possibly more to the protective colloidal and emulsifying effects that it confers. The digestive processes are essentially colloidal phenomena, whereby fats, carbohydrates, and proteins are ingested in the colloidal condition and changed by the various enzymes to degradation products capable of absorption by the body. To accomplish the formation of these simpler substances, the enzymes must come into intimate contact with the food particles. If, perchance, the food particles are present as large, tough masses, as is the case with cow's milk coagulating under the influence of the hydrochloric acid and rennin in the human stomach, the contact surface of the enzymes with the food is limited and gastric digestion is delayed or impaired. Various specialists have described experiments in vitro as well as with humans which show that the coagulation of cow's milk by acid and rennin is prevented or modified in character in the presence of relatively small amounts of gelatin. This effect is spoken of as protective colloidal action and it is interesting to note that gelatin is one of the most efficient of all known protective agents. Gelatin is also a good emulsifying agent and it is quite probable that it aids the secretions of the alimentary apparatus in the emulsification of fats.

In discussing the digestibility of milks, Chapin says that those animals whose stomachs form the larger percentage of the digestive tract and their digestion is largely gastric produce milks that form tough curds, as for example, the cow. In contrast is the human whose stomach forms only about 20 per cent of the digestive tract. Human milk curdles in light flocculent masses. It has been pointed out by Alexander that human milk contains a natural protective protein in large amount, which is present in small amount in cow's milk. It would seem, that the addition of such a protective agent as gelatin to cow's milk would make it particularly suitable for infants, and such has been found to be the case, as is testified to in pediatric literature.[1]

In like manner, gelatin has been shown to be of value in other dietaries composed largely of dairy products. For example, Hawk reports that the addition of gelatin to the milk-egg diets of tuberculosis patients resulted in decided nutritional improvements with the majority of the cases tried.

The experiments described suggest the advantages that are to be derived by the utilization of gelatin in other dietaries. The protective colloidal and emulsifying action of gelatin promotes the digestion and ab-

1. See, for example: Jacobi: "Intestinal Diseases of Infancy and Childhood," 1887, p. 79; Starr and Westcott: "Diseases of Children," 1900, 23; Griffith: "The Care of the Baby," 1908, 386; and Friedenwald and Ruhrah: "Diet in Health and Disease," 1923, 295, 466. On the utility of gelatin in chronic intestinal infection, see Herter: "Infantilism from Chronic Intestinal Infection," 1908, 101.

sorption of various types of foods. It is also misleading to assume that gelatin as a protein is of insignificant food value.

Feeding tests by McCollum and by Osborne and Mendel have shown that with certain cereal grains gelatin is exceptionally well utilized, presumably through its high content of the amino acid lysine. Also, with milk proteins gelatin is of value, as has been found by Sure. In combination with milk in the liquid form, it is believed, however, that the colloidal properties are of greater significance.

THE CLINICAL SIGNIFICANCE OF ACIDOSIS AND ALKALOSIS

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The subject of acidosis has aroused considerable interest in the past few years, not only to the biochemist, but also to the internist. The subject is rather a deep one, involving many biological and chemical problems that are not completely understood. At this time, the research work has gained sufficient progress to be of definite value in medicine. The men in the field that have brought the work to its present status are such men as Van Slyke, Haldane, Marriott, Henderson, Sellard, Myers, Austin and many others. However, the purpose of this paper will be to cover the practical phase of the subject from the facts already known. Until just recently it was thought that acidosis existed only when acetone bodies were found in the breath or urine, thus occurring in advanced cases of diabetes only. We now know that it occurs as a complication of many pathological conditions and frequently without an increase in acetone output.

The normal reaction of the body fluids is slightly but definitely alkaline and the variation of this reaction compatible with life is very narrow. The blood or body fluids are never acid, even in a severe so-called acidosis. The constancy of this reaction is well within the limits of distilled water which is neutral, and tap water, which is slightly alkaline.

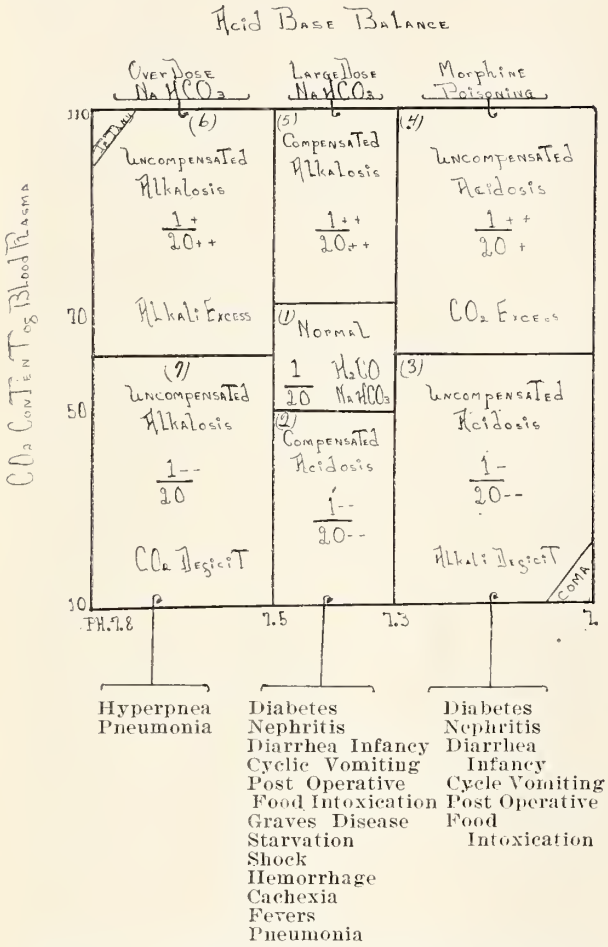
The reaction of a solution depends upon the relative proportion of dissociated H and OH ions. If OH ions are in preponderence it is alkaline, if H ions are in preponderance it is acid. In distilled water the dissociation of H and OH ions is equal, thus it represents true neutrality. In order to avoid complicated detail and time it will suffice to say that the H ion concentration of distilled water is expressed as Ph. 7. This is a logarithmic notation, originated by Sorenson. The Ph. or H ion concentdation of the blood normally lies between Ph. 7.3 and Ph. 7.5, but the limit of H ion concentration in which life can exist is between Ph. 7 and Ph. 7.8.

The principal elements in the system that are responsible for this constant slightly alkaline reaction are acid and alkaline phosphates, bicarbonates and proteins, the latter being amphoteric reacting with either an acid or an alkali. These substances are called buffer substances of the body fluids and are capable of neutralizing a considerable amount of either acid or alkali without changing the reaction of the body fluids themselves. The above chemical mixture affords ideal conditions in maintaining the normal acid base balance. In explanation, for example, take a suspension of calcium carbonate which is neutral in reaction and add a small amount of strong acid such as hydrochloric and the suspension remains neutral. Though a neutral substance, it has a high tritation value and will not change in reaction until the supply of calcium carbonate is exhausted. These buffers in the body fluids react the same as calcium carbonate when an acid is added to them, i. e., the reaction remains the same, but resulting in a gradual depletion of the buffers. Therefore, generally speaking, by acidosis we mean a depletion of the buffers in the tissues.

In the process of normal metabolism there is a constant production of acids such as carbonic acid, organic acids, acid phosphates and diacetic acid. These are either neutralized by the buffers or eliminated through the lungs, kidneys, skin and bowel. Thus an almost constant Ph is maintained. The bicarbonates are most important of all the buffers in maintaining this normal acid base balance. They not only neutralize the acids in the system, but they are also the media through which the carbonic acid is carried from the tissues to the lungs for elimination. If for any reason there should be an over-production of acids, or improper elimination of the acids, then the bicarbonates and the bicarbonate carrying power of carbonic acid would be diminished, thus there would be an accumulation of carbonic acid in the system.

Thus the molecular ratio of carbonic acid to sodium bicarbonate is constant in a normal individual, this ratio is 1:20, that is, 1/20 is carbonic acid and 19/20 is sodium bicarbonate. Any variation of this ratio will result in either an alkalosis or an acidosis. In other words, this ratio bears a direct relation to the hydrogen ion concentration in the system, i. e., if the numerator is increased and not the denominator, an acidosis exists, and visa versa. It has also been found that the normal carbon dioxide content of blood plasma lies between 50 to 70 volumes per cent (i. e., 1000 c.c. of blood plasma contains from 500 to 700 c.c. of carbon dioxide if all the carbon dioxide is liberated) under 50 volumes per cent, would be an acidosis, over 70 volumes per cent, would be an

alkalosis. Clinically, this does not always hold true, as will be seen from the following diagram.



Square No. 1 represents normal acid base balance; the CO_2 content is between 50 and 70 volumes per cent and hydrogen ion concentration between Ph. 7.3 and Ph. 7.5. The minus and plus signs in squares 2, 3, 4, 5, 6 and 7 represent a relative increase or decrease of numerator (acid) or denominator (alkali). For instance, in square No. 2 the numerator and denominator are both decreased proportionately so that the ratio remains the same. In square No. 3 the numerator and the denominator are both decreased but a greater proportionate decrease of the denominator. The relative changes are also found in squares 4, 5, 6 and 7.

Acidosis is a complication encountered most frequently in diabetes. In this condition there is an accumulation of ketone acids in the system. These acids or acetone bodies are the result of incomplete oxidation of the fats. The complete oxidation of the fats is dependent upon the stimultaneous oxidation of a certain amount of carbohydrates (Ration 2.5-1). Even though we have a high blood sugar in diabetes, the sugar is not available without the presence of pancreatic enzyme. The fats are catabolized to acetone bodies in the absence of this enzyme, i. e., this enzyme is responsible for the utilizatio nof the carbohydrates which in turn completely oxidizes these acids. Thus in diabetes there is a missing link in the complete oxidation of fats and carbohydrates, the result in an accumulation of diacetic and B oxybutyric acid in the system. These acids deplete the buffers with a resulting acidosis. If this missing link is replaced in the form insulin the incompletely oxidized acids are oxidized by the carbohydrates and the acid base balance is again re-established.

The acidosis of nephritis is due to improper elimination of acids and not an overproduction of acids, as in diabetes. In this condition there is no disturbed fat and carbohydrate metabolism, thus no increase in acetone bodies. However, the result is the same whether the acidosis is due to diabetes, nephritis, starvation, cyclic vomiting, or diarrheas, i. e., the buffer substances are depleted, the CO 2 content of the blood is diminished and acetone may or may not appear in the breath and urine.

It will be well to give special mention of post-operative acidosis. Reinman and Bloom have reported acidosis in 72 per cent of post-operative cases. These cases would be minimized if no cathartics were given and the patient permitted to have a normal diet with sufficient carbohydrates up to and including the night before operation. Prolonged anaesthesia and excessive manipulation of tissues also predispose to acidosis. These patients usually suffer from severe gas pains, vomiting and restlessness for several days following operation.

The clinical signs of acidosis are seldom evident until in a rather advanced state, or stage of decompensation. Change in breathing is usually the first symptom. The breathing is deep, accelerated and without a pause. The skin and mucous membranes have a bright red color. The patient is restless and drowsy, coma may develop.

Thus early diagnosis of acidosis depends almost entirely upon laboratory tests of blood, urine and alveolar air. The clinical signs may not be detected even in uncompensated cases and no doubt are frequently overlooked. Laboratory methods, however, will give definite information of the stage of acidosis.

The following tests are given in order of their value:

(1) Co2 content of blood.
(2) Sod-bicarbonate tolerance test.
(3) Co2 tension alveolar air.
(4) Acetone bodies in urine.
(5) Hydrogen ion concentration of blood.

The CO2 content of the blood is readily and accurately determined by the Van Slyke method and within a short time will be more or less a routine hospital procedure. As stated before, the normal limits of CO2 content of blood plasma lies between 50 to 70 volumes per cent. Anything over this is considered an alkalosis and anything under an acidosis.

The sod. bicarbonate tolerance test of Sellard's is applicable to all types of acidosis and the most simple of all the above tests. It depends upon the effect of akali administration

on the reaction of urine. A normal individual requires from 5 to 10 grams of sod. bicarbonate to change urine alkaline. A definite acidosis without any clinical signs will require 20 to 40 grams to change the urine alkaline. In advanced acidosis 60 to 120 grams must be administered before a change in reaction is noted.

Normally the alveolar air contains 5.5 per cent carbon dioxide. In a severe acidosis this may go as low as 2 per cent. By the Marriott method this test has become much simplified. The H ion concentration test is impractical and seldom used. Other tests give evidence only in certain conditions of disturbed metabolism and are not standard tests of acidosis.

Heretofore the treatment of acidosis consisted in giving large doses of sod. bicarbonate. Large doses of sod. bicarbonate taken into the system change the relation of sodium, potassium, calcium and magnesium in the body. This changed ratio in certain conditions has been shown to be harmful. The sod. bicarbonate neutralizes the acids, but if given in excessive doses, may develop tetany. Sod. bicarbonate may be given in certain cases, especially acidosis of nephritis. However, most of the cases of acidosis are due to improper fat and carbohydrate metabolism and quite frequently due to insufficient carbohydrate ingestion. Thus, by giving carbohydrates in the form of glucose by mouth, per rectum or intravenous injection we treat the cause of the acidosis. The oxidation of carbohydrates burns up the incompletely oxidized acids in the system, thus reestablishing a normal state of affairs. Most cases of acidosis clear up immediately on this treatment. In some cases insulin may be given to stir up the flame of carbohydrates, which again establishes a normal situation.

SUMMARY

(1) In acidosis the buffers of the system are depleted with an altered ratio of carbonic acid to sod. bicarbonate in the body fluids.

(2) Most cases of acidosis are due to disturbed metabolism of fats and carbohydrates.

(3) Acidosis is a complication of many diseased conditions.

(4) Earliest clinical signs of acidosis are: hyperpnea, absence of cyanosis, restlessness, drowsiness.

There are three practical tests for acidosis.

(1) Determination of CO_2 content of blood plasma, Van Slyke method.

(2) Determination of sod. bicarbonate tolerance, Sellard test.

(3) Determination CO_2 tension of alveolar air.

These tests will in the near future be instituted in all modern hospitals. They are simple and practical.

REPETITION OF TUBAL PREGNANCY IN OPPOSITE TUBE—DOUBLE VAGINA—TWO UNUSUAL CASES

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CASE REPORTS

Case No. 1. Mrs. R. N., German, married, age 33, had no history of previous pregnancies, pelvic infections or menstrual irregularities.

In September, 1923, after going by her period three weeks, she had an attack of sharp pain in left iliac region, with faintness and started to flow. The physician who was called at this time and also during a recurrence of the symptoms a few days later failed to make the proper diagnosis. Probably the symptoms were not so alarming. The third attack was very severe. After excruciating pain and vomiting she fainted. She was very pale, exhibited air hunger and had no discernable radial pulse. The lower abdomen was rigid, very painful especially on the left and cul de sac bulging with what was thought to be blood. Rectal temperature normal. We both saw her, for the first time, in this attack and of course, with such classical symptoms could not fail to make a practically positive diagnosis. As soon as her condition allowed, she was removed to the hospital where operation was performed two weeks from first pain.

The left tube was found ruptured and pelvis filled with clots. The tube and most of the clots were removed and abdomen closed without drainage. Recovery was prompt and she enjoyed the best of health until she became pregnant in opposite tube.

In February, 1925, Mrs. R. N. had gone by the proper time for her period two weeks, when upon getting up early to do a washing she was taken with cramps in the stomach and bowels and unable to continue her work. The pain was not in the side as the previous attack and soon quieted down. She had several of these attacks at intervals of a few days until after a more severe and prolonged attack Dr. Lamley was called.

At this time her temperature was 101°, pulse 110, and a mass could be felt in right iliac region. She was pale and now had pain in the side. A diagnosis of either appendicitis or tubal pregnancy was made and operation urged, but refused.

The next day the patient's father-in-law became ill and died and she got out of bed and did some light work more or less forgetting her own symptoms. After the funeral she went back to bed, her pain and soreness more pronounced.

March 21, after more severe pain, she was again urged to be operated, but still refused. However, she consented the next day and was operated

March 23, just five weeks from the onset of symptoms.

In spite of the more or less classical symptoms appendiceal abscess was thought probable and as the cul de sac was full this was explored with the idea of draining in this direction. The collection proved to be blood, so abdominal section was performed. The pelvis was found filled with blood clots, the right tube enlarged with fimbriated end widely dilated, this having been a tubal abortion. The tube and clots were removed and abdomen closed without drainage. The recovery was good, as before, so far as operation was concerned, but a right sided pleurisy developed in the second week which delayed convalescence.

As would be expected, the pain and other symptoms were not so severe in the tubal abortion as in the first attack in which the tube was ruptured and gestation a week longer.

Case No. 2. Mrs. H. B., aged 26, who had been married several years and never pregnant, told her husband she had two vaginas and that the reason for her sterility was that intercourse occurred through one, the larger, and that menstrual flow came through the other, smaller one. Upon examination her diagnosis was found to be correct, there being no opening into the uterus through the larger vagina.

This cervix was opened and dilated and in a few months she became pregnant. The labor was prolonged and finally ended by a forceps delivery. the two cervices were torn into one and the upper part of septum between the vaginas torn loose. This flap became hypertrophied and prolapsed and a few years later after becoming pregnant a second time the flap and remainder of partition were removed. The labor following and also a third were easy and normal.

THE INTESTINAL BACTERIOPHAGE OR LYTIC PRINCIPLE IN THE SPECIFIC INFECTIOUS DISEASES —PRELIMINARY REPORT SCARLET FEVER AND CHICKENPOX

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The role of the bacteriophage or lytic principle in certain acute intestinal diseases—dysentery, typhoid, paratyphoid and intestinal epidemic diseases of fowls and domestic animals—has been elaborated by D'Herelle. D'Herelle believes that the bacteriophage is responsible for cure in these diseases. He has shown that it is absent from the stools in the beginning of the disease, appears towards the end of the active stage of the disease, and becomes virulent for the organism causing the disease as well as to the intestinal bacteria at the time the activity of the disease is beginning to abate. It disappears during early convalescence. As the bacteriophage becomes lytic for bacteria, other than those responsible for a given disease, we become interested in finding out whether an active bacteriophage or lytic principle develops in the stools during the course of the specific infectious diseases whose cause, with probable exception of scarlet fever, is still unknown.

We find that a bacteriophage or lytic principle develops quite uniformly and characteristically in the stools of scarlet fever patients, seldom in those of chickenpox pavirulence. In scarlet fever the lytic principle was active for B. Coli, B. dysentery (shiga and Flexner) B. typhosus, B. para typhoid, A. and B. It had no lytic effect on hemolytic streptococci isolated from the throats of scarlet fever patients. The other infectious diseases are being investigated.

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Edited By

MICHIGAN DEPARTMENT OF HEALTH

THE VACATION PROBLEM

Fashions in vacations vary as well as styles in clothing, but probably on a more logical basis. Cause and effect play an important part in the changes in our summer habits, and just now the automobile is the cause and travel is the result.

Not many years ago a summer resort looked for a normal number of patrons and such anticipations were quite reliable except when an occasional cold summer reduced the expected numbers. But since the advent of the automobile in ever increasing numbers, resort conditions have materially changed. Some families who own cottages at resorts continue to occupy them for most of the summer season, but many who were accustomed to stop at summer hotels, or rent a cottage for a few weeks, now prefer to spend their vacation in the family car, traveling from place to place.

Resort hotels complain of decreased patronage even of transient guests, which indicates that many people prefer to spend the night in a tent rather than to stop at a hotel. The very greatly increased number of camping places provided by state, city, and individual, with their crowds of campers, shows clearly this change which has come over the spirit of the vacationist.

We must not, of course, draw hasty conclusions and say that all of the present day campers were once hotel patrons, for automobile travel has doubtless made it possible for many to go away from home for greater or less distances who formerly did not think they could do so. It is doubtful if much of the increased travel can be charged to lower cost of transportation. Rather, it is due to the habit of moving about, encouraged by the possession of an automobile, and to the desire to see more along the way, and to come and go according to the wish of the moment.

With these facts in mind, it becomes evident that the problem of resort sanitation is not the same as it was a few years ago. Then it was a question only of the summer colony and the various phases of its sanitation. Now we must consider also the very greatly multiplied stopping places afforded by state, municipal, and private tourist camps and lodgings.

The first extensive work attempted to improve the sanitary conditions of Michigan summer resorts was done during the summer of 1913 by the Engineering Bureau of the Michigan Department of Health. A total of 77 resorts, situated in 11 counties, were visited.

During the summer of 1916 seven assistants were employed by the Engineering Bureau on resort work, visiting 173 resorts in 73 counties.

In 1917 the work was continued with one man in the field who made a total of 48 inspections in 15 counties.

During the three seasons mentioned, travel was almost entirely by train or by such hired conveyances as were necessary to supplement train service. The work consisted of a thorough inspection of the resort and the giving of such advice on the ground as seemed desirable. Samples from drinking water supplies were collected and sent to Lansing for analysis. Written reports concerning each resort were filed in the office.

In 1920 it was concluded that the methods previously employed did not give the resorts the attention to which they were entitled and fell short of accomplishing all that was desired. It was decided, therefore, to organize a party composed of trained sanitarians, equipped with a traveling laboratory for making examinations of water and food supplies. A sanitary engineer, a bacteriologist, and a food specialist made up the group. A passenger car was provided for inspection trips and to carry literature on sanitation for distribution.

The plan of operation provided for a set-up covering three or four days in a prominent resort section where as many people as possible were induced to visit the car, receive instruction and use the service it offered. While the laboratory car was in position the resorts in the surrounding country for a distance of 10 to 15 miles were inspected and water samples were brought to the laboratory.

During 1920 a total of 59 resorts in 12 counties were visited in about six weeks, which was all the time available on account of the late start. In 1921 there were 104 resorts inspected in 10 counties in 58 days, and 33 resorts were reinspected. In 1922 a total of 152 resorts were visited in 17 counties in 55 days. Since 1922, funds have not been available for the resort unit.

During the three seasons that the traveling laboratory was in operation, the border of the lower peninsula was pretty thoroughly covered except for the southeastern portion. Little work was done on resorts in the interior of the state, a section that needs such service. The

larger resorts are situated on the great lakes and some of them are well equipped with sanitary conveniences. Others show a lively interest in such matters and do all they can with the facilities available. The same can hardly be said concerning some of the smaller places, and particularly those situated on the inland lakes.

If the operation of the traveling laboratory could have been continued at least until the entire state had been covered and records of practically all of the resorts collected, supplementary trips could have been made to those most in need of inspection and gradually they would have been raised to a better standard.

As a rule, the suggestions made by the engineers in the field were received with a great deal of interest and a healthy desire was manifested to comply with instructions. The lack of full-time local health service is the chief stumbling block in the way of success. This statement is not a reflection on the attitude of the health officer; it is a comment on the inefficiency of the existing system. No effective follow-up work on resort inspection can be expected until we have a district or a county health officer trained in his work and adequately paid, who gives his entire time to the service of public health.

Since vacation habits have changed we have not only the resort sanitation problem to consider, but also the tourist camp. The problem here is quite different. Many resorts have a local association of property owners which is a valuable aid in general improvement, including the enforcing of sanitary regulations. No such organization is possible in a tourist camp. If the camp is maintained by the state or a municipality, sanitary facilities and efficient supervision are possible, but in a privately owned camp this is not the case.

Some of the municipal camps seem to have been established in an attempt to popularize the town and to secure the trade of the transients. In too few cases is there adequate supervision or rules of conduct, even if the necessary sanitary facilities are provided. It is doubtful whether the returns to business men from transient patronage is enough to pay even their share of the municipal expense of running the camp. The share of the other taxpayers is spent without any benefit to them except the general advantages derived from advertising the town, whatever these advantages may be. It is conceded that there is little material gain in this sort of advertising. Opening a municipal tourist camp has usually much the same motive behind it as actuates the man who tips a waiter or a bell boy in order to make a good fellow of himself, rather than from a feeling of gratitude for service performed.

In states where the tourist has become even more numerous than in Michigan, much thought has been given to the idea of securing a return from the traveler direct by way of a small fee charged for the use of the camp. In this way revenue is obtained for maintenance and better service is assured, because the patron will object if things are neglected, knowing that he is not receiving a proper return for the fee he pays. The tendency among those who have given serious thought to this subject seems to be all in the direction of pay camps.

Another problem which is rapidly growing in connection with automobile travel is the roadside eating place. Little, if any, effort has yet been made in Michigan toward regulating such establishments. Particularly in the eastern states soft drink and sandwich stands have become numerous and regulations governing the purity of foodstuffs, methods of handling, and the health of the handlers are of the greatest importance. Probably a law requiring a license, based on compliance with required precautions, would be necessary before anything effective could be accomplished.

Roadside water supplies, either in connection with the eating places or separate, should be investigated and their safety for drinking and cooking made known to the public. Work has already been done by the state health departments of Pennsylvania and Ohio, at least, and probably by others, but Michigan has not yet made a start in this direction. It is hoped that an adequate program may soon be made possible, since a state that is so justly proud of its recreational advantages cannot afford to be behind in safeguarding them.—E. D. R.

RESUME OF PUBLIC HEALTH LAWS PASSED BY THE 1925 LEGISLATURE

The 1925 Legislature passed several public health laws, some of which are extremely important and will remedy conditions that have been unsatisfactory for a number of years.

Perhaps the most important passed were those for improving the care of the tuberculous; a half-million dollar appropriation for the construction of a new state tuberculosis sanatorium and a law authorizing county boards of supervisors to erect county tuberculosis sanatoria and to increase the state aid given county sanatoria.

Michigan has had county sanatoria, but there has been no standard for their administration. There was an insufficient number of beds to properly care for all the cases in the state and insufficient means for the care of indigent cases. A report by an inspector from the National Tuberculosis Association says that conditions in Michigan county sanatoria range from the worst to the best.

State aid has been limited to $3,000 for each sanatorium. The new law provides state aid of $1 per day for each indigent patient, which sum will be greatly in excess of the present $3,000. It makes it necessary for county institutions to be properly maintained before they

can receive state aid. A small tuberculosis institution which has no full time medical service and which, to all intents and purposes, is only a boarding house for consumptives, cannot receive state aid. It also makes it illegal to build a county tuberculosis sanatorium on a poor farm.

The new state tuberculosis sanatorium will replace the present state sanatorium, which is inadequate in many ways. Its type of construction does not conform to up-to-date standards and its facilities are insufficient for the proper medical care of patients.

In addition to these bills for the care of the tuberculous are those covering the construction of sewage disposal plants, the employment of county public health nurses, the revision of the laws for the reporting of communicable diseases, births and deaths, the acceptance of the federal law for the promotion of maternal and infant hygiene, the distribution of free antitoxin and the establishment of branch laboratories.

A bill providing that the courts or the State Department of Health may order cities to issue bonds for the construction of sewage disposal plants will remedy a weakness in the old laws that has allowed unlimited pollution of streams. It has been possible for the State Department of Health to order a city to construct a sewage disposal plant, but the bond issue for the construction of the plant was left to the vote of the people, which usually resulted in its defeat. Under the new law, the city council orders the bond issue at the direction of the courts or the State Department of Health. That this will result in improvement is shown already by the fact that the Michigan Manufacturers Association, in a recent annual meeting, recognized that it would be necessary to change their manufacturing methods to comply with the law. Next to the tuberculosis laws, this is the most important passed by the 1925 Legislature.

The bill for the distribution of free biological products for the prevention and cure of diphtheria carries an appropriation to be used in the purchase of antitoxin and an additional appropriation for building a plant for the manufacture of antitoxin providing that it can be manufactured cheaper than it can be purchased.

Two old vital statistics laws, one for the registration of births, and one for the registration of deaths, were combined, and a fee of fifty cents for reporting each birth paid to the physician by the county was removed. This means a saving to taxpayers of about $50,000 a year.

In 1909, when a campaign for the prevention of tuberculosis was being made by the State Board of Health, a law providing that a physician be paid fifty cents for each case of tuberculosis reported was put on the statute books. Since the measures for the prevention of tuberculosis are now conducted in the same manner as those for the prevention of any communicable disease, this fee was removed by a new law.

County boards of supervisors have not been authorized by law to employ public health nurses. During the past year several counties discontinued their public health nursing service on the basis that such service was illegal. The state law provided for the employment of nurses by townships, but not for their employment by counties. Under the law passed by the Legislature, county boards of supervisors are now enabled to appropriate money for the maintenance of county nursing services. It also indicates certain educational standards that such nurses must reach.

Two years ago the state accepted the provisions of the federal law for the promotion of maternal and infant hygiene called the Sheppard-Towner law. The federal law provides federal aid to states for a period of five years, dependent upon the acceptance by the state legislatures of the provisions of the act. It was necessary for the 1925 Legislature to again accept this law and make a $30,000 appropriation for its administration. These next two years will mark the ending of the five-year experiment in special activities for the reduction of infant and maternal mortality.

Subject to the approval of the state administrative board, the State Health Commissioner was given authority to establish not more than three branch bacteriological laboratories in the state.

AN OUTBREAK OF DIPHTHERIA IN A PREVIOUSLY IMMUNIZED RURAL COMMUNITY

Upon the request of a township health officer in a northern county, a medical inspector was recently sent from the State Department of Health to investigate, and, if necessary, to take over control of what appeared to be a threatened epidemic of diphtheria.

The community, consisting of a village and surrounding sparsely settled country, with a total population of approximately 450, was found to be quite well isolated from neighboring settlements, the nearest lying at a distance of ten miles. There is no great direct communication between the settlements.

Diphtheria was found to be confined to three families, four individuals being afflicted. Case No. 1 occurred in a school boy, taken ill eight days following his return from a city in the southern part of the state, where he had been exposed to an individual suffering from a sore throat. This patient had a very severe throat infection. Thirty thousand units of antitoxin were administered intramuscularly. When visited, convalescence was well established. The tonsils, pillars, and soft palate were still quite

deeply congested and the heart presented evidence of moderate myocardial disease. A culture taken from the throat and naso-pharynx was positive for the bacillus diphtheriae.

Cases No. 2 and 3, also occurring in school boys, came to a rapidly fatal termination. Case No. 3 was a brother of the first boy taken ill. Neither of these two cases were seen, but the history of each illness was quite typical of laryngeal diphtheria. No cultures were taken and apparently no antitoxin was administered.

Case No. 4, and the only one occurring in an adult, was acutely ill when visited, having been sick for six days. No physician had been called. A clinical diagnosis of diphtheria was made. The heart presented evidence of marked myocardial damage; prognosis was grave. Cultures from the throat and naso-pharynx were positive for bacillus diphtheriae. A virulence test on this organism was positive.

The community has one standard consolidated school. One year ago a toxin-antitoxin campaign was put on. The present enrollment totals 115; of this number, 81 pupils have had toxin-antitoxin. The number of pre-school children receiving same could not be determined. None of the above cases had toxin-antitoxin. All refused the same during the campaign one year ago.

In view of the fact that the entire school had been exposed, as well as many adults and pre-school children in the community, a throat culture survey was made. All cultures were reported negative for bacillus diphtheriae. Many direct contacts not receiving toxin-antitoxin were given one thousand units of antitoxin. Daily school inspections were carried out, children absent from classes being investigated for illness.

The mode of transmission of infection in the above outbreak is apparently by direct contact. There was great intimacy between the families contracting the disease, the three children being continuously together. The one adult infected took care of case No. 3 during the illness. No isolation precautions were taken. The organism appears to have been brought into the community from a distant locality by case No. 1. No diphtheria that might have been the source of infection could be located in neighboring communities. No cases were reported.

It is evident that a severe epidemic was avoided only by the large proportion of school children already immunized. None of the diphtheria cases had received toxin-antitoxin treatments—and two of them died. More than half of Michigan is unprotected. If a virulent strain of Klebs Loeffler bacilli should be brought to these unprotected communities, the resulting diphtheria cases and deaths would not be confined to a few children. Is your town immunized?

PREVALENCE OF DISEASES

APRIL REPORT

Cases Reported

	March 1925	April 1925	April 1924	Average
Pneumonia	849	678	677	679
Tuberculosis	406	668	916	541
Typhoid Fever	38	38	53	83
Diphtheria	339	307	473	567
Whooping Cough	364	636	342	628
Scarlet Fever	1,717	1,603	1,416	1,063
Measles	771	1,049	3,275	2,669
Smallpox	80	93	689	398
Meningitis	19	8	15	16
Poliomyelitis	3	4	2	2
Syphilis	1,301	1,362	1,224	802
Gonorrhea	843	773	854	713
Chancroid	11	6	16	14

CONDENSED MONTHLY REPORT

Lansing Laboratory, Michigan Department of Health, April, 1925

	+	—	+—	Total
Throat Swabs for Diphtheria				2197
Diagnosis	64	704		
Release	154	416		
Carrier	15	811		
Virulence Tests	16	17		
Throat Swabs for Hemolytic Streptococci				1839
Diagnosis	186	582		
Carrier	58	1013		
Throat Swabs for Vincent's	19	749		768
Syphilis				12716
Wassermann	1178	5193	81	
Kahn	1295	4884	84	
Darkfield		1		
Examination for Gonococci	157	1154		1311
B. Tuberculosis				514
Sputum	68	416		
Animal Inoculation	7	22	1	
Typhoid				124
Feces	9	58		
Blood Cultures	1	12		
Urine	1	5		
Widal	5	33		
Dysentery				
Intestinal Parasites				34
Transudates and Exudates				250
Blood Examinations (not classified)				338
Urine Examinations (not classified)				710
Water and Sewage Examinations				467
Milk Examinations				118
Toxicological Examinations				7
Autogenous Vaccines				4
Supplementary Examinations				276
Unclassified Examinations (including Dick test surveys)				1414
Total for the Month				23087
Cumulative Total (Fiscal year)				213587
Increase over this Month last year				4332
Outfits mailed out				15817
Media Manufactured, c.c.				301685
Diphtheria Antitoxin distributed, units				11586000
Toxin Antitoxin distributed, c.c.				49795
Typhoid Vaccine distributed, c.c.				661
Silver Nitrate Ampules distributed				2804
Examinations made by Houghton Laboratory				1611

County Secretaries Conference, Grand Rapids, Michigan, April 22nd, 1925 at Hotel Rowe

NOTE:—The Editor has made no attempt to edit the following discussions. To have done so would have destroyed many valuable points which we are very anxious to "get over" to Secretaries and members.

Dr. Clancy: Gentlemen, the meeting will be in order. And I want to say to you that I believe perhaps that this conference of County Secretaries is really one of the most important activities of the State Medical Society. We all recognize this as an undoubted truth, that if the counties are active in the work, the whole State Society must necessarily profit thereby, and a greater interest spreading throughout the whole state; and no County Society is ever quite up to the mark, cannot be it seems, unless the Secretaries of those respective Societies are active men. Perhaps there are no others connected with the government of the State Medical Society in an official way, that have more to do, and as trying work to accomplish, as the County Secretaries. The average—perhaps not the average member, but a very large number of members in all County Societies are indifferent, and unless the County Secretary—and he is responsible largely, perhaps he has a very active man associated with him as President, or his County Society, who wants to make the meetings interesting and profitable; but after that comes the real labor of the County Secretary, in seeing that there is a good program, in regular meetings, and he has not alone to send out notices to the members of the Society, but he has to keep reminding, perhaps for a thankless job, thankless insofar as having any expression given in the way of appreciation. The Secretary of a County Medical Society gets the most asked of him and the least appreciation.

I am particularly glad to be here meeting with the County Secretaries, because while much has been done in the way of organizing, in the way of bettering County Societies, there is so much more to be done in the future, and you men through your interest in the betterment of medical conditions in the State, who have sacrificed your time, many of you come long distances, are here to spend probably a part of yesterday and all of today and maybe longer before you return to your homes, you have done something for the medical profession in this State that is accomplished by few, just a few throughout the State, and they are represented largely in the ranks of your County Society.

Now, I want to thank you for coming and to express my pleasure at being here. I am going to ask the Chairman of the Council, Dr. J. B. Jackson, to address you. Dr. Jackson.

Dr. Jackson: Nobody asked me to give an address to this assembly until this minute.

Dr. Clancy: I asked you.

Dr. Jackson: Gentlemen. The President asked me to give you an address. It is out of my line.

There are some things that I would like to say to you, however, as County Secretaries, and in the first place I want to emphasize what Dr. Clancy has said, that the success of our State Medical Society depends upon the component societies. We do not function as a State Medical Society except as the County Societies function as individual units, we are simply the organization which represents you, and the success of the County Society Dr. Clancy said, depends to a large extent upon what you do as Secretaries.

When you are elected as Secretaries and accept that election, there devolves upon you a very large matter of responsibility for the success of the work of your County Societies. I have seen it in our local Society, I have seen it in other societies; if a society is a going concern it is because the Secretary puts the necessary kick into it; if the Secretary just goes through the formality of reading the minutes and then forgets it until the next meeting and is not interested in getting the attendance out, is not interested in the program, the Society activity begins to slump. When you get a man into it that has got the necessary amount of kick and push, then things begin to hum again. There is no gainsaying that there is a large amount of responsibility which devolves upon you as Secretary of a County Society.

What I want to say particularly is about the relation between component County Societies and the State Medical Society, and especially about the relation between component Medical Societies, County Societies, and the Council of the Michigan State Medical Society, which is your body. I think there is a feeling in a good many County Medical Societies that the County Society is one thing and the State Society is another thing; that there is not any very close relation between the two; that you elect at the convention a Councilor and he represents you and then you can forget all about the State Society, you haven't any responsibility in the matter. I want to make a plea at this time for a closer co-operation between the

County Society and the State Society. It is not a matter of two Societies. The State Society simply is your organiaztion.

The Council is elected and functions merely to carry out your wishes. If you are not satisfied, if your County Society is not satisfied with the way the Executive Committee of your State Medical Society function, then it is your duty to say so, let us know. We wish to function as your representative, we wish to carry out your wishes and desires. If there are certain things about medical organization that you think are wrong, not functioning properly, let us know. We wish the County Secretaries would attend when they can the meeting of the Council. We would like to see you there, and if you can attend and if you have suggestions to make, if you have ideas about the way the Council, the Executive Committee, should act, if you have ideas about the management of the State Society, let us know.

The Secretary, and I, as Chairman of the Council, and all the members of the Council, welcome suggestions from component Medical Societies.

I know that you, as Secretary, get a letter from the State Secretary's office and you read it and stick it in your pocket or put it in your minute book, and then when the County Society has its meeting if there is time you read that, and nobody knows anything about it, it doesn't get proper attention. There is not enough official consideration of the communication which you get from your Society, from your State Secretary. I wish that there might be more interest in the activity of the central organization by the component organization. I want to particularly make a plea for one or two activities of the State Society. We have been trying now for several years to carry out a work of public health education. We have felt that the dissemination of information about medical matters to the public is the best way to combat various cults and isms that are developing, irregular attempts at the practice of medicine. We have felt that if the public knew the truth about disease and about the various methods of treatment of disease, there would be less lack—there would be more confidence in the medical profession. We feel at times that the public is not entirely in sympathy with the medical profession. We feel at times that they are critical of them, and they run off to Christian Science, and Chiropractic and Osteopathy. The reason they do that is because we haven't their entire confidence. It has seemed to us that the best way of combatting that is to dispel this cloud of mysticism which has surrounded the practice of medicine, tell the people as much as we can the facts about disease, about its prevention and cure, and to take the public into our confidence. There has been appointed by the State Medical Society a Joint Committee on Public Health Education, as you know. This is represented by the State Medical Society, which has five members on that committee; by the State University Medical Department, by the Detroit College of Medicine, by the State Tuberculosis Society, by the State Dental Society, by the State Nurses' Association, by the Public Welfare Workers and other organizations. Now it is our effort to carry out a program of public health education, to go to the people and tell them the truth about the practice of medicine. Now you, as Secretaries of County Societies, have a large responsibility in the success of this work. The work of this committee has been increasing. We are having more demands for people to talk, for men to talk to public audiences, than we can supply. The only way that we can carry out this work is by having your co-operation. You know the men in your community who are able to do this work, you know the men who would be available for such work, and we wish to make a plea at this time for the County Secretary and the County Society to co-operate more fully than they have in the past in the work of this committee.

At the last meeting of this committee, which was held in this room about a week ago last Thursday, I think, there was some discussion of the problem of public education through the press, and I want to say just a word about that. I believe that as County Secretary you can be of some help in this matter.

In the first place I want to emphasize what has been emphasized time and time again in our State Medical Society work, that is the importance of the Journal which is published by the American Medical Association, *Hygeia*. This represents to me the greatest single opportunity that we have had as medical men of giving the public, the laity, information about medical matters. I want to impress upon you your responsibility in the widening of the circulation of this magazine. You all certainly ought to have it on your own library table, on your own waiting room table; you ought to see that it is put in the public school library; you ought in every way that you can, increase the interest of the public in this magazine.

There are other ways in which the press can be influenced to disseminate information to the public. You find that the various newspapers in your community are willing and eager to have information; in many cases the only way you can get that before the press, give them information first-hand. You know that the reporter has a very happy, or unhappy, faculty of getting medical things all twisted up, and the reason that the public has been so misled in matters of medical information through the press is because the men who write the stories, don't know how to do it. It seems to me that as Secretaries of County Societies you have a

responsibility in this regard. I know that the Secretary is going to say all this to you in his address, and I don't want to steal all of his thunder, but there is just one other thing that I would like to speak about, and that is your co-operation in the matter of the District Conferences, which we are putting on through the State Society organization.

Now, these are your conferences. They are held for the benefit of your local Society. It is a method of educating the doctors in your community, it is a system of post-graduate medical instruction. We think it represents the greatest thing that the State Medical Society, of which you are compliment members, has attempted in the history of this organization. These District Conferences, gentlemen—up to the present time, have been a great success. You, as County Secretaries, are interested in these conferences. You know how they have gone in your community, you know what they have accomplished, and if you have criticism, if you have constructive criticism to offer I want to say that your Council and your executive officers will welcome such criticism. We want to know what the men in your community want, if they are getting what they want in these conferences. If you have ideas how they might be improved, if you have ideas how the attendance might be increased, if you have ideas as to how we can widen our scope of usefulness in these conferences, we want your notion about it. Remember that your executive officers of your Council are trying to carry out your wishes in the matter. We don't want to put something down your throats, we want to do what you want, we are simply representing you. If you have criticisms, come tell us, don't tell the other fellow. If you have ideas as to how this can be made more useful, let us know. There are other things that I can say, I know the State Secretary is going to say them to you and say them better than I possibly can; I simply want to say in closing, I want to emphasize in closing, the fact that the organization of the central organization, the Council and the executive officers of this Society are your officers, we are representing you, and we would like to know when we do a good job of it and when we don't. We want your co-operation and your help and remember that the State Society is nothing more than a component County Society. Thank you.

Dr. Clancy: The Secretary-Editor has a most important message to bring to us, and perhaps his opportunity of getting in the closest contact with the work of organization are better than that of the rest of us; added to that, however, is the fact that he possesses a very large fund of information, he has the happy faculty of usually presenting his thoughts in a very direct and comprehensive way, and he is going to talk to us on the "Spirit of Organized Effort." Dr. Warnshuis.

Dr. Warnshuis: President Clancy, President of this Conference, County Secretaries, and members of the Council: I just want in an informal way this morning to convey to you what I have been pleased to term "The Spirit of Modern Organized Effort," as a sort of keynote if you wish to so take it, that will govern our discussions that are going to take place and which we are going to try and have each one of you join in on during the course of the day, in order to solve this problem that we have that is confronting us, of organized effort. (Paper here read). (See May Journal).

Dr. Clancy: I want to ask you whether it is your desire to discuss each of your topics as presented to you individually immediately after their presentation, or do you want to leave it to a general discussion of all of them.

Dr. Warnshuis: I would like to suggest, that we take up each discussion after each speaker.

Dr. Clancy: Is that the general sentiment? I hear no objection. Then we will discuss this address of the Secretary. Dr. Jackson, you talked to us a few minutes ago, we will ask you to open the discussion.

Dr. Jackson: I find I have already discussed it in my opening remarks.

Dr. Clancy: You said some of the things.

Dr. Jackson: I think the things that Dr. Warnshuis has brought up are vital to the success of our Society work. I don't know as I have anything further to say about the several points that he has brought up. The question of scientific meetings, I think County Secretaries have usually centered their activities on the matter of presenting a good program to their Society, and the matter of getting out the attendance that is usually considered by a County Secretary as his first function, and many his only function. I suppose that in the course of the conference today we will discuss ways and means of making County Society programs interesting to our members, but the Secretary has called your attention to the fact that there are other activities a County Society, especially a Secretary, should be interested in, this whole program of public health education, education of the public about medical matters is within your scope of activities. It should be a part of your function as County Secretaries and I think that there has been a lack of effort on the part of County Societies to take part in it, individual members have responded to our request for co-operation in this work, but I have no doubt that every one of you if you would give some thought and attention to this work, could be of great help to your Joint Committee. We have in every community a lack of sufficient speakers to take care of the demands for public addresses. Now, it is not the inten-

tion of your Joint Committee, if a man says that he will respond to a request to speak before a public audience, to send him clear across the State where it will take two or three days to do the work. We want these addresses, we want speakers in each community, so that speakers can be provided without traveling long distances.

I have no doubt that every one of you, if you will give this matter your attention, could submit to the Secretary of this Joint Committee, Dr. Henderson, director of the Extension Work of the University of Michigan, a list of men who would be available for this work, and we need them. We cannot supply the demand that we have in your community and every other community. That is one thing that I want to ask you to do, make it a business in your County Society to supply a list of speakers who are available for addresses in your community. These are not formal talks. Your men do not need to be public orators. We simply want them to speak about some of the facts about medical practice. The people are anxious and eager for it. I want to impress that feature.

I have already explained in detail about the matter of activities through the press. That is a part of your function as County Secretaries. There are one or two other things which the Secretary has touched upon which are very important. Not the least of these is the matter of fellowship, the matter of medical fellowship.

You know one reason why we doctors don't go very strong with the public is because we are biting each other. We don't get together and put our feet under the same table and talk things over. We are critical of the other men, we are critical of the other fellows in our community. Every time that you or one of your members of your County Society knock somebody else before the public, you are destroying the confidence of the public in the medical profession. You can't knock one fellow without knocking the whole profession. We doctors should get together, air our grievances with each other and not before the public. We need to cultivate this fellowship. You will find that the fellow that does so many things that you don't approve of, has got a lot of good points. We need to cultivate the sense of fellowship with members of the medical fraternity. We need to pull together. The whole matter centers around this idea of fellowship. If it wasn't that there was some doctor in your community that some fellow would say he didn't do a good job, there wouldn't be any damage suits. Damage suits are always instituted by another doctor. If we could cultivate this sense of fellowship we wouldn't have so many of these damage suits carried on by the State Society. It is a question of fellowship. It is a question of getting together and finding out the good points in the other fellow. It seems to me that discussion of these two points, the question of public health education and the question of fellowship, will serve to open this discussion.

Dr. Clancy: The question is open for discussion. I am going to ask, however, a member of the Council, Dr. Darling, to talk at this time.

Dr. Darling: Mr. President. There is so much to say I hardly know which side of the subject to take up. There is one point I had in mind and spoke about at some meeting before, I think and that is in regard to the county health boards or township health boards. That has a very important bearing on this work. In our staff meetings at St. Joseph Hospital we always call on the health officer to give us any report that he may have to give and also to point out any way in which we may be of service to him. I think that if the health officers of the various townships in the county were called upon to make some report like this to the County Society, a great deal might be learned about what is being done to educate the people in public health. We might find out very many valuable things as to whether the proper dissemination of this knowledge was being put forth or whether there is some way in which that could be done.

Dr. Clancy: I am going to ask you to join into this discussion, take part in it. Who will be the next speaker to discuss this? All of you have got something to say, you have been impressed, I am quite certain of that. Dr. Wilson of Muskegon.

Dr. Wilson: I don't know as I have anything, as I am but a young Secretary, four months in the service. I may start out this way in saying that I believe in a protective tariff, but gentlemen, the time is coming when the law of nature, the survival of the fittest is going to work; we must in the future compete with the Chinese or go down. I do believe in organized effort. I think that inasmuch as the State Society is made up of the component County Societies, that the County Society is made up of its individual members.

A chain is no stronger than its weakest link. How many times do the older members in the profession run on to a case that comes into the office and says: "Why doctor, what is this kind of machine for, what is this apparatus for?" You tell them that is a blood pressure instrument. "I have been the rounds, doctor. Nobody has ever tried that thing on me before." I think where the chiropractors and the Christian Scientists and the other cults get this thing is from the weak members of our Society. It seems to me it should be the effort of the older members in the Society to assist the younger men. This is done very nicely in Muskegon. I don't think that there is any Society in the state of Michigan where good fellowship and co-operation are more noticeable than they are in our County Society. This I might say was brought about by the good efforts of our old friend, Dr. Garber, perhaps, whom you all know, who has made it an effort during his many years of practice to foster good fellowship. We have our general staff meetings at our two hospitals once each month; practically every member of the medical profession in good standing in our county is a member of the general staff at

these hospitals; there we meet at the banquet board and discuss hospital affairs and present cases, help each other in diagnosis, and I think accomplish a lot of good in helping the other men. The consultations are freely given and much good in the matter of fellowship is brought about. As far as the Secretarial work is concerned in our county, I have so far found a disposition on the part of every member to co-operate and assist me in every way possible. I want to say before I sit down, that we are prepared to take care of the State Medical Society over there and I think we can show all of your members a good meeting. I wish you would carry that word back home with you. Thank you.

Dr. Clancy: Next.

Dr. Stewart, of Houghton County: I have come a long ways again. I was here last year and felt that I profited by the Conference.

I think that these points Dr. Warnshuis has stressed are very important in our organization. In fact, I have endeavored as Secretary, to carry out these very things. Last year we had a goitre survey up there. We examined the school children, well, in fact, the State Board of Health carried this on; anyway the Medical Society was very much interested in it, and examined over 13,000 school children and found a very large percentage of goitre.

A public meeting was held in which all the guests of the various civic organizations and other organizations were invited and the public was taken right into our confidence. We gave them all the figures and educated them right along the line of that particular subject.

I think that Dr. Jackson has hit the nail on the head that there is is too much back biting and too much fighting among the members of the medical profession.

My average attendance last year was around fifteen. We have a membership up there of about 40-42 members. However, through the summer months when the country is open, we are able to get around a little better, we have a better attendance than that. I find that by giving the men something that is worth while in the scientific program, something that they wanted, sort of a symposium covering one subject, having different men give short talks on these particular subjects and then giving them a good lunch afterwards and getting them acquainted and rubbing elbows with each other, that I find that there is a feeling of friendship between these men that is developing and growing. Also, I think that there has been a lack of friendship between the doctors and their wives. By that I mean the doctors and their wives, not individually, but as a whole.

There has not been, I know, in our county any social activities in that line. Last year we were very pleasantly entertained at one of the doctor's summer homes there and we had a beautiful banquet. In fact, we got pretty well acquainted, something we have never done before. We contemplate the same thing this summer. I just give that as a point, that it is a very excellent means of getting acquainted. I am very glad to be here, and I thank you.

Dr. French, of Ingham County: I intend to incorporate some of that in my talk. I don't want to use up too much time now and then duplicate the same thing later on. Dr. Warnshuis mentioned the fact of promoting the spirit of fellowship among the doctors. I must confess by personal observation that is a pretty difficult thing to do. I am ashamed to say that, but of course I am comparatively young at the game and especially at the Secretary's job, but the few personal observations I have made, I find that as the doctors meet at social or professional gatherings, scientific gatherings, they will apparently be the best of friends, slap each other on the shoulder.

I know of several instances when the next day outside, those same men will stick a knife very deep in the back of the men the day before they were patronizing. The spirit of the thing is absolutely correct, but practically, I find it doesn't work out. That was one question I was going to ask just what Dr. Warnshuis thought was the best way to bring that about?

Dr. Williams, of Alpena: I had a good deal rather speak on this periodical examination of children and adults. I think that is the most leading point Dr. Warnshuis has suggested here today, that we have some form whereby each particular medical man can examine carefully along the line of life insurance institutes, whereby that can be available. I was wondering if the County Society could not have some duplicate at least of these blanks, perhaps that would be inadvisable, but some manner in which the County Society could push for those examinations and see that they were conducted and thereby, by the very examination, elevate the standard of medical examination in the community. I think it is a fine step.

Dr. Clancy: Will somebody else volunteer to continue the discussion?

Dr. Shackelton, of Kalamazoo: Mr. President. It seems to me that one mistake is made by all our County Secretaries, they put the young men in the Society in as Secretary. They think because a young man has little to do that he has more time to devote to it, but as a matter of fact, he is under a handicap because he is not a member of the Society and feels that he is subject to criticism.

There is one question that I want to ask that has come up in Kalamazoo a number of times and that is a question of eligibility of membership. Without doubt a man who is habitually guilty of unethical conduct, should not be allowed to membership of our Societies. On the other hand, at the present time there are a number of men who are putting in their application for membership of Society, are men who are liked, where their standing is questioned from an educational standpoint, their professional ability is questioned. It seems to me inasmuch as the State of Michigan has licensed this kind to practice, if they are fairly decent sort of fellows and are trying to be square with their fellow practitioners, perhaps we are in a position to help them. Is that true or shall we discourage their application?

Dr. Clancy: I am waiting for somebody else.

Dr. Highfield, of Riverdale: I haven't any stated or set opinion about some of these matters. The matter of doctors knifing each other is one of the most difficult things. It hinders the Society in every way. Some twenty years ago I had some correspondence with Dr. Manwarring of Flint regarding a fee bill we were trying to get up. He ended up that letter by saying that they thought they would have to be born again. My experience has been that it is the older men that are more apt to be the knifers than the young men. I don't like to say that. It seems to me that that used to be the custom to get the other fellow's goat, among the older men, they have never forgotten, never been able to quit it. That is my impression. We have got a very agreeable set in our county, but of course we are small, we are small of membership and small of attendance. Our average attendance is about a dozen. We can't set a very

good standard for men that are in larger places. I think the fellows in the larger places have got a snap when it comes to getting out attendance or getting men to come a distance. They are quite willing to come to a large place, but they don't want to come to a small place where there may be a half a dozen fellows out to hear them. This question that Dr. Jackson brought up, about these public meetings, the difficulty I have had when we tried to have one of those public meetings, was to get any attendance, the public didn't seem to be interested at all. We drilled the papers, of course, we only have weekly papers where I live, in fact, don't have any daily paper except one that comes from another city.

We have to work those papers and work out hand bills and then we would get a handful. I felt completely discouraged about those public meetings. Regarding the sending of names into that committee, I sent some names in. I don't know whether the committee thought they were not qualified or what, the men were never appointed.

The biggest trouble I have is attendance. Just like I said a minute ago, some men have to be born again because there are men in the county who are so busy or else they have got so accustomed to sticking to their office they don't want to come out, they won't come out for any ordinary occasion at all. Maybe you could get them out if you would go to their town and have the meeting right in their office. That is about the only time. We have got men that won't show up. Sometimes when we get right to their town they won't come to the meeting. The biggest thing I have to overcome is the inertia of the men themselves. I appreciate that you might hand it back to me and say you don't get out an interesting program. Well, sir, I get completely discouraged about that—when I get a man to come from Ann Arbor, or Detroit, or Grand Rapids; if they come from Detroit they have to stay over night, come the night before and spend a night, two nights and a day to come there, and then have about 17, 15, 10 or a dozen fellows to hear them. I get completely discouraged about that part of it. I get so discouraged I think I won't bother getting any of those big men again. Perhaps Dr. Darling knows something about it. I know I had one man listed from Ann Arbor once, there was another fellow come up ahead of him, I think there were about six to hear him. I never could get the other fellow to even answer my letter after that, he wouldn't even answer my letter, after he promised to come. He heard how many there were there to hear him, he says it is all off.

Dr. Clancy: Will somebody else take part in the discussion?

Dr. Brush, of St. Clair: It seems to me that the best way of creating good fellowship among the local members is by having more open meetings. We had our Annual Meeting and election of officers, and shortly after the beginning of this year we gave a banquet to three of the oldest members of St. Clair county. We did not have any regular speaker for that evening. Everybody was rubbing elbows and having a good time, where they don't do it so much at the regular meetings which we hold twice a month.

I believe it is the custom in some cities to every week or two, hold a noon day luncheon where the members of the profession attend.

If any of you belong to the noon-day luncheon clubs I think you will find there is that spirit of good fellowship that prevails, everybody has a good time from the time they go until they leave. I don't know why that same fellowship could not be created at a noon-day luncheon by the members of the medical profession.

Dr. Kudner, of Jackson: Mr. Chairman, I find that one of the best ways to promote good fellowship is to get the doctors off by themselves some place at a club house or cottage, give them a few poker chips, dice, and let them rub elbows that way. Besides that, I think the annual picnic is a very good means of stimulating good fellowship; take a ball game, a few games and things like that put on the program of a picnic, it seems to me it does a whole lot to create a spirit of good fellowship.

Last year in Jackson county we had three of these meetings where we had no program at all; I mean two meetings and a picnic. We just went out to a lake some place and had a good dinner and sat around and talked, had a good time; those that wanted to indulge a little bit in games of chance, did it. Those that did not sat around and talked and had a good time. We had a very good attendance at those meetings, showing that the doctors like to meet with each other that way. I think that is one of the good ways of creating good fellowship. One thing that we have been trying to do in Jackson is to get out a new constitution and by-laws for the Society. I have had several letters from other counties, desiring by-laws and constitution and we didn't have any. We wrote to about ten and I think we got one answer. We got a set of by-laws and constitution from the Oakland County Society. The one from Muskegon came just the other day. I think that is something that should be looked into by the state organization and Council. A lot of these County Medical Societies are going along without any by-laws and constitution.

We are going to adopt one this month sometime.

Dr. McKinney, of Saginaw: A point that has not been mentioned here this morning, is the great advantage of the doctors taking one afternoon a week off. Many of the societies in the state do this.

While it has been a new thing up in Saginaw we find this has proved a wonderful means of affording a chance for the doctors to become acquainted, because they have every Thursday afternoon off. It affords them an opportunity for the men to get together, with some leisure time, which they have never had before.

I have been in the County Society work long enough I think to have seen a great change take place in the last 15 or 17 years and I am much more optimistic over the fellowship situation than Dr. French is. I have seen such a big change in the last 15 years. I think we are asking perhaps too much to see it a hundred per cent perfect all at once. I couldn't help but notice how all the younger men here nodded their heads when the remark was made that it was the older men who were responsible for the things that are going on.

I have been in the Society work more or less directly for perhaps 15 or 17 years and I simply base my idea upon the change that has taken place and especially in the last few years. I think that we may all be rightfully optimistic over this fellowship situation for the future.

Dr. Curry, Flint: Two or three points I want to discuss. The first one I believe is with reference to Dr. Darling's remarks concerning the Health Department. It seems to be the tendency for us all to refer to our own County Society, excuse me if I make some mention of Genesee county. We handle our dealings with the public by means of a Speakers' Bureau on which we have about a dozen members. We don't hold public meetings to have

these people come and listen to the subjects, but we go to them, a meeting of the Women's Guild, the churches, the noon day luncheon clubs, which is the Kiwanis, Rotary, Exchange, etc., and we make it a point to get across to the public in that way. I presume that could be done better in a larger city than it can in a small town. It perhaps can be worked out as well with reference to membership; we require a man to be in Flint or to be in the county, six months. During that time he is under observation, and then he has to be recommended to the Society by two or three members. He is then voted upon and his application is turned over to a Board of Directors. If they pass favorably he is in the Society, he is watched pretty well for a period of six months. The question of fellowship, we are living in an age of supersalesmanship. Perhaps that is greater in Flint than in other towns, because of the large number of automobiles being manufactured there, but I wonder if we are losing sight of the fact that we forget the other fellow. The older man, who has been in town for 15 or 20 years, is pretty well set. He is not as enthusiastic about association as the young man who comes to town and craves the association and craves the fellowship with the men he expects to spend the rest of the days with. I believe if we younger men would make it a point to become acquainted with the older men and force ourselves upon them constantly and persistently and try to sell our personalities and sell our abilities, whatever they might be, they might do. It is an old saying the quickest way to a man's heart is by medium of the stomach. I believe that the noon day luncheons are successful. In Flint we feed them first and have the talks afterwards. We meet at 12 o'clock and have the lunch; they seem to be quite comfortable after they fill their stomach and are able to smoke.

Dr. Warnshuis: Mr. Chairman: The thought I had in mind was to break the ice of this conference, which I have experienced from year to year in our Michigan conference, and then to have you men get together. Mr. Smith will, a little later on, present some pertinent points. The thought I wanted to put over for you men who are County Secretaries was that you, as individual Secretaries, have a definite, very heavy obligation, for the standing and the achievements of the profession in your county, and that to acquit yourself of that obligation is going to take an immense amount of effort and thought and time. You must be at it from morning till night, day in and day out and week in and month out, because it is you alone who is going to be compelled to do the slavery and the drudgery of the work, if you are going to get any enthusiasm or secure any results. As has been said for the years past, been repeated here by Dr. Jackson this morning, that your County Society is as good as its Secretary. Where we have an active Secretary we always find a good active County meeting. When that active Secretary finally goes out of office and some other man goes into office and he doesn't follow with that same aggressiveness, immediately the curve goes down and that County Society is not the active organization that it was. The thing I wanted to impress was the individual obligation that you have; you simply have got to make this contribution upon the altar of medicine today and you will get nothing for it except a personal satisfaction.

Dr. Williams asked about the examination blank. That blank will be available from the headquarters of the American Medical Association. You can write there and secure as many as you want for your individual use and for dissemination through your County Society. It is a blank that has been given thought and consideration over a period of three years, and is really a very well devised blank. An obligation of modern times, brings to us the duty of examining people and advising them as to their state of health, how they may avoid the pitfalls of disease and secure a longer and a happier life.

As to eligibility of membership. Our organization plan is a democratic one, and in that democracy it has been entrusted to the County Society, which is the only door through which a man may join our medical institutions of County, State and nation, to determine the eligibility of a man. Whether you should take in this man who may have been a reprobate, who may have transgressed our ordinary rules of courtesy and association of fellowship, or who may be engaging in some practices that are not quite up to the standard, or that meet the requirement that we are seeking to establish today, that is a matter, gentlemen, that your County Society and your membership must determine. Where a man may have such a reputation, it might be well to take that man in and try him; once you get him in the fold, you may leaven him and make a really decent individual out of him. On the other hand, there is another man who, by your experience and judgment is irredeemable, who belongs to Satan's force alone, and there is where he is going to stay. You can't redeem that fellow, probably you don't want to take him in. But when you do take the man, then exercise an influence for good over him and watch him and help him, and just because he may make one mistake don't immediately cite him for trial. Have somebody go and talk to him. You have a committee on ethics, a committee on membership, your board of directors, your officers, or you as a Secretary, go over and tell him in a frank way: "Bill, you are not doing the right, square thing." Then, if he persists and is a reprobate, of course, you want to get rid of him.

I want to tell just another thing. About three weeks ago I was down to Detroit and had a meeting with the Council of the Wayne County Medical Society, who transact the business affairs of the Society. We increased our dues and we set forth a program for State activity that the Council, through its officers and through the County units, are going to carry out for the benefit and good of the profes-

sion. We are doing that as is being evidenced by the Conferences that have been held and the other work that we are trying to do throughout the state.

In Wayne county we have a membership of 1,200 men who are members of the State Medical Society, almost half of our total membership; 1,200 men who have paid their dues without a word, and who have contributed this year into our coffers $12,000. We all know that Wayne county has been a Society that has stood out before the country as being an aggressive organization carrying out the ideals of medical society work. We know that Wayne county, in Detroit has an abundance of clinical facilities, clinical means of teaching; we know they have a splendid medical library; they have these extension lectures, they have periodical clinics each week in their several hospitals, to which their men can go; they have a medical reading room, they are carrying on public meetings through the schools and lay organizations of Detroit.

We told them we were concerned with them, and interested in their work and wanted to know what we could do for them. The universal answer of every member of that Council was, it is not the problem of what the State Medical Society can do for Wayne county, but it is what can Wayne county do more for the State Society. That is the spirit of those 1,200 men in Detroit. That is the spirit that we want to engender and develop in every county organization, not only what we can do for ourselves, but what we can do for the smaller society or the smaller unit in the state, in order that all our members of the profession may benefit from the work.

The attendance at public meetings has been partly answered.

The answer to Dr. Highfield is that we don't want the County Medical Society to come out before the public as being the sponsors of these meetings; we want you to have a local committee. Make it their duty and purpose to see that in your community during the course of a year, six, eight, ten, twelve or fifteen meetings are held, not under the auspices of your County Society, but under the auspices of some lay organization that shall sponsor it. The work of that committee is to see the officers of your Parent-Teachers Society, your Grange, your luncheon clubs, or other organizations that you have and get them to sponsor the meetings. Put the advertising problem before them, and have them place it before the public, you and your members and your committee serving only as the spur to get the local lay organization to sponsor these public meetings. When you do that you are going to arouse public interest. In Alpena, a week or two ago, through the Parent-Teachers' organization they got out at an evening meeting on comparatively short notice, an attendance of something over 500. That is the way it is being done by the members in Detroit. They are going before the Parent-Teachers' organizations and the various schools and carrying on the work that way. During the last year we reached 79,000 of the people of Michigan and told them some things about the truths in medicine. You can never regulate quackery or rule out these cults by any legal enactment. Education and a little knowledge on the part of the public is going to do more to eradicate them than anything else. That is our obligation to carry this education to the public; you have got to do it through those avenues and those means.

As far as the Constitution and By-laws; some of our County Societies have a constitution and by-law that was adopted in 1902, and the succeeding officers and Secretaries finally exhausted the supply, and there is probably, unless you search through your back files a long distance, no copy of your Constitution and By-Laws. That doesn't pertain alone to Michigan or your county, it pertains to the nation. Recognizing that fact, a National Committee was appointed that would redraft a new model Constitution and By-Laws for a County Society. That committee is going to report at the American Medical Association meeting at Atlantic City, May 25th, and will have prepared (and we will see that it is given publicity) a model Constitution and By-Laws for your County Society, which you may amend or change for your local conditions.

One more thing and I am through. Smith is going to talk a little later on on some of the problems we have in our State office.

I want to talk about The Journal. Your editor and your Publication Committee cannot write the scientific articles, or cannot prepare the scientific articles. It is true some of you will probably say we have sent in this paper and we have sent in that paper and it has not appeared or it has not been printed. The time was up until this year when we were limited as to space and could take care of only a certain number of papers that were submitted, having first to take care of some 75 or 80 papers that were presented at the state meeting. We were able to run only approximately from 6 to 8 papers an issue last year, and in previous years because of limited finances. We have

set this standard, upon advice of the Council: That a paper that is submitted for publication and that is published in The Journal must have some intrinsic practical value, not to be purely a scientific matter, or purely a scientific statement, but one that has some scientific practical value or helpfulness to our members; that is the purpose of our Journal, to give that help. We receive papers submitted to us that you know are practical papers and fine for your County Society meeting. They review the subject and give extracts from articles that have appeared in our National Journal, or from statements that have been made in clinics or in teachings, that are fine and bring to the member of your local Society the last word or the new things on that subject. However, when you come to the point of publishing that paper, when you go over it, you find that it is only an extract or quotations from articles that have already appeared in medical publications. They are a fine thing for your County Society and for your local program because it saves the man from reading some of these things, but it is of no practical, educational value in The Journal. I make that statement just to let you know why sometimes some of your papers do not appear in our publication. We want you to send in papers that are worth while and are of helpful scientific value to the members, and above all other things we want you to send in the case reports. I find that men about the state and in the city obtain more help in reading about a case, how you met this problem or that one in that case report, than they would in a lengthy article. The other thing we want is a record of our organizational progress, not only for our history so that posterity twenty-five, fifty or a hundred years from now may read. The other main basic reason why we want to keep up that record is that it serves to reveal to you how one county on this side of the state meets a problem. It helps the Secretary over in another County Society across the state to solve that same thing. As you have an idea, as you are developing a movement or you are developing a work in your county, as you impart that the Secretary in another County Society can read it, and it will be an inspiration and a stimulus to him to go and do likewise So my plea is that you send in reports of your meeting and s end them in every month. We want The Journal to be of personal interest. While this is putting a burden upon you, as I said before, that is your task and your job. We want personal items.

You have done splendid, we have no kick. I think Dr. Jackson, the Council, and Dr. Clancy, our President, will say that the central officers of your State Society are pleased with the contributions you have given.

We would be very unreal if we didn't want to secure still more, and that is why we are not trying to condemn or criticise or say that you are doing nothing. We want you to do more and we are here to help you to do it.

Recess until 1.30.

AFTERNOON SESSION

1:30 p. m.

Dr. Clancy: The meeting will please be in order. The next paper on the program is: "What Are Desirable Features of the Scientific Programs," by G. J. Curry of Flint.

Dr. Curry: Mr. President, I am not going to read a paper. I am just going to give you a few informal remarks on this subject. Apropos of what the President said in his opening remarks, that the State Association functions as well as its various units, the county organization, so do the County Societies function as well as the members are enthusiastic over the doings of the Society, particularly with reference to attendance. You will pardon me if I refer occasionally during my remarks to my own Society, because that constitutes my entire experience with County Society activities and programs. I like to look upon the scientific program of a County Society regardless of its location, as to whether or not it is in a small rural community or a large metropolitan center, as a post-graduate course. Oftentimes the members of the fraternity in the various counties do not have the opportunity to attend clinics at centers of medical education. Consequently their only means of coming in contact with what is going on in the way of professional medicine is by means of speaker from the outside, so that the first premise is a post-graduate course.

Now. I think the two fundamental things connected with the post-graduate course regardless of its location is first the subject and then the speaker. Then to go on a little further, and then we will go back and discuss those two points, it is impossible to have a good speaker and necessarily a good subject, unless you have an active secretary, and an active chairman of the program committee.

Now, if I might refer to Genesee County for a minute, I don't have anything to do with the procuring of the speakers, that is

all done by our Program Committee, which consists of one man, whose name is Dr. Marshall. I think we are very fortunate in having Dr. Marshall because of his wide experience throughout the state, and perhaps that is the reason we are able to get a large variety of speakers. This program is all mapped out at the beginning of the year, over a period of 20 talks or papers and it is outlined according to the various divisions of medicine, as for example, a subject on surgery, or one of the branches of surgery; internal medicine and the various specialties.

Then next is the location of the Society. That is a factor that has to be considered. One gentleman mentioned here the fact that it was difficult for him to get an audience and hard for him to get speakers in his small community where there were about twelve members of the profession. That is a point that has to be taken into consideration. Now, first the speaker—I believe that the speaker, if he is an outside speaker, should be brought from a convenient distance, so that you are sure he is going to arrive, depending upon your location near the centers of learning, choose the man who is able to arrive by motor car during the season which you can motor, and then your speakers that come from a greater distance, that would have to come by train can be reserved for bad weather.

Then the type of speaker—try to secure speakers who know their subject and know how to tell it to you, and particularly try to impress upon them in some diplomatic way not to read a paper. I thing that talks are very much more interesting. If somebody will get up and face the audience, tell them in an informal sort of way what he knows about a subject instead of having a large number of statistics that he wants to read, I believe that you can get it to your prospective speaker in some diplomatic way that papers are undesirable.

Then as regard to the subject—the subjects should be ones that are interesting to every member of the profession. If it is in a metropolitan district where there are a large number of doctors attending County Society meeting, we should have some one subject that is particularly interesting, so as to be sure to get them out, and then general surgical subjects that will get out the general surgeons of which there are a large number in every community. Some are always doing general surgery. We can usually get a large number of men out to listen to a general surgical subject. The laboratory is to be represented and in that way you have a constant turn-over of attendance coming in to listen to the various subjects on various branches of the profession of medicine.

Now, as regards the problem of the small rural district, I believe changes could be made there, not following this general plan that I have suggested for the larger districts such as we are in right here. It is a psychological fact that when someone is asked to do something and approached in a pleasant sort of way, and made to feel that the service for which he is being approached are very muc hin demand, that he gets rather puffed up on himself, and he is very glad to come and do it. We all like to be told that we are doing something quite well, even though we might think there is a little bit of blarney in it. I believe you can stimulate the interest of a scientific program by asking members of your own profession to give papers that will stimulate their interest and the other members of the profession in the immediate neighborhood will be interested to know what one of his colleagues has to say upon this certain subject that is assigned to him. I should think that would hold pretty good for the smaller district where perhaps the meetings are held once a month or perhaps once in two months. In my own city we are having meetings every two weeks. I believe that a good scientific program, next to the spirit of fellowship that we are all offering suggestions for the stimulation of, is the second best thing to get a good crowd out to a meeting.

These are only suggestions of my personal observations.

Dr. Clancy: Dr. Ricker, will you open the discussion?

Dr. Ricker: Gentlemen, I didn't know I was to open the discussion. This is a very important subject as I see it, and it has been well presented at this time by the men who are holding these medical societies where they have twenty-five to a hundred to attend. I could only speak from a small Society where we only have ten or twelve men. It has been my good fortune in the last two or three years to be associated with a program for the Northwestern Michigan Society which meets at Traverse City, or Petoskey, or Cadillac, because of the fact that that is the only way we can get enough physicians together, in order to hold what is really called a medical meeting. We have our staff meeting at the hospital once a month. We cannot present a scientific program; we cannot put over a scientific program and a scientific program is what the medical men in rural communities need more than anything else. They need the good fellowship, they get a great deal of that from their own organizations which they are associated with, and when you come to put the subject up to them of attending a medical meeting they go there and either go to sleep or have a cold or something else. You have got to have something very attractive to hold them; and the point which was brought out

here relative to reading papers is a very good thing. I don't think that any man should come to a medical meeting, I don't care how small it is, and try to put over a proposition of reading a paper, because they are going to have the same experience that I had in reading a paper at Traverse City last fall, when one of our own members of our own Society went to sleep and fell out of a chair. I didn't blame him a bit. He felt right at home. He always falls asleep at a medical meeting. We are handicapped, we have three months up in Northern Michigan when it is almost impossible to get out. We haven't any train service and the result is that the Medical Society lags behind during those months. You fellows are fortunate in Flint, Grand Rapids, Kalamazoo and Detroit, where you have got train service and bus service to bring your men together, but we are handicapped. We are in hopes to have more meetings in the summer, but in the summer we are serving the people and there we are handicapped again. The people all come up north in the summer during the resort season. The doctors say we haven't got time to attend medical meetings, we are too busy. That is true, too.

The suggestion was offered today by one of the doctors who come from Ann Arbor that possibly we might be able to get a post-graduate school at Ann Arbor. I think that is the next step along the line of our clinics which has been so successful this year. I was certainly very glad to read in the last Journal, reports of these Clinics that are being held in Michigan.

I think they are the finest things the Medical Society has done and one of the things that medical men need. We have been running along for some twenty or twenty-five years, we need some stimulus. These meetings that are being held are certainly doing a lot of good. I think that is about the only thing that we in the northern part of the state can accept in the line of a program for the education of our doctors; we get them together as often as possible and we have to get them together during the season when the roads are good.

Dr. Clancy: Who else will discuss the address?

Dr. McKinney of Saginaw: I think Dr. Curry made a very important statement when he said it was a great thing to give the individual member a job. I think Saginaw this year is having the best meetings it has ever had. The plan that is being used this year is a plan which has been borrowed largely from the luncheon clubs, namely, that of dividing the membership into groups. We took the membership of our Society and made as many teams or groups as we expected to have meetings during the year, which is about ten monthly meetings. We made no attempt to put the men in cliques; in other words, we took the other method of trying to put men on teams who were not in the habit of being associated together. We tried to make teams whose membership was especially interested in some branch of medicine, such as the men who are especially interested in obstetrics, put on one team, the men especially interested in surgery, etc., and the entire responsibility for a given meeting is put upon that team, that has charge of the meeting. We have found it has worked out as we hoped it would. Each team feels the spirit of competition and tries to outdo the team that had the preceding meeting. This has worked wonderfully well, and each team is perfectly free to put on any kind of a meeting it chooses. We have had noon meetings, we have had speakers from a distance and speakers from near-by cities, each team has a chance to work out its own plan.

A very distinctive advantage of this method has been that it has unwittingly helped the good fellowship idea because these teams do get together before the meeting, to plan for it, and it is bringing the men together who have never become acquainted before.

Another point that came to me this morning while Dr. Warnshuis was speaking was that I know that our Society is very lax; while we may have a fine program prepared, we have been very lax in not having anyone to open discussion. It appears to me that that is a great help, when you have a meeting prepared, to have at least three members primed to give the discussion a good send off.

Dr. Corbus, of Grand Rapids: It seems to me that the County Societies are lacking, forgetting one thing, and that is this, that you have got to train men to be able to appear before the County Society and talk. It seems to me here in Kent County and perhaps the other Societies, that the individual member of a Society is not given papers enough, that you are trusting to the outside men to come in and talk to you.

If this present plan to have these diagnostic clinics instead of sections of the State Medical Society, are going to deprive certain men who might have come or might be stimulated to write papers, from doing so, then we hope to supply that want through the Conferences that we are having around the state. These Conferences ought not to be taken by just a few men, they should be taken by a number of men, and those men before they get ready to appear before these Conferences that we are having, must have had some training, and it is up to the County Medical Society to see that they have that experience that will permit them to go further.

Some years ago I was President of the Kent County Medical Society, and was fortunate enough to have a very excellent Secretary who is now the Secretary of the State Society, and we instituted what seemed to me at that time, and still does, a very good plan. We brought men in, it seemed necessary here somehow to bring men in to get the crowd out, but every time we brought a man we saw to it that some one member of the Medical Society talked. I think that stress must be put on the necessity of the men of your own local Society getting up papers and talking before the Society. It is the only place that they are going to get that training which they need to permit themselves to go on and properly deliver a paper.

Dr. Clancy: Who else will discuss the subject? Dr. Wilson.

Dr. Wilson: At the staff meetings at our hospitals in Muskegon, the time is devoted first to a dinner, followed by presentation of cases, case reports and at each monthly meeting the deaths that have occurred during the past month are discussed and that fills a want. At our regular county meetings we have made it a practice to depend on our local talent for most of our work, especially are the younger men encouraged to take charge of the program, and once about every three months, or four times a year, an effort is made to bring in some outside man. The ordinary meetings are usually held after hours in the evening. I make it a practice to send out cards three days before the meeting, stating the place and time of meeting and the program of the meeting. If the papers are to be delivered the subject of the paper, the man

who will deliver the paper, so that the members of the Society are prepared to come and intelligently discuss the paper. I find that much is brought out in discussion that is not developed in the paper. I don't know that I can say anything about attendance. I think our attendance is unusually good; most of the physicians have their offices centrally located so that it is no effort after office hours to turn out to the meeting. The meetings are called for 8:15 and we are usually ready to go home at 10:30.

Dr. Clancy: Somebody else.

Dr. Jackson: I am not a County Secretary, never have been, but there are one or two things that has interested me in Medical Society meetings. I think that the interest is always enhanced by the discussion of cases. It seems to me that one reason why staff meetings at hospitals are really better attended by the men in practice is because the discussion centers about an actual case. There are case reports or discussions of fatal cases, and the history of the case, the methods of therapeutics, the results of therapeutics, whether or not a mistake has been made in the diagnosis or treatment of the case. The actual discussion of the cases always seems to bring out greater interest than the mere discussion of an abstract subject. I think that one reason why the hospital staff meetings are perhaps attended with greater interest is because the discussion centers about some particular case. We have tried in Kalamazoo and do about two or three times a year have clinics. Now I know there are certain objections to clinics, but we find that having, for instance, some man come and talk to us about heart, and have actual cases to present, we always get a good crowd at those meetings. We have once a year perhaps someone come to us and talk about skin diseases, which most of us don't know much about and all of us are worried about our patients, they are particularly good subjects for clinical demonstration. We have had the same in the problem of tuberculosis. We have had two or three clinical meetings where tubercular patients are cared for; men always turn out for those meetings. I believe there is a particular interest attached to the discussion of a medical subject if it is discussed in connection with some particular case.

Dr. Clancy: Will somebody else discuss?

Mr. Smith: Mr. President. I want to introduce one suggestion here that I think I have spoken of in The Journal several times. It seems to me the point that Dr. Curry made is a very vital one, having the programs worked out ahead, and not only that, but it seems to me there is a great possibility of developing correlated subjects for two or three meetings at a time, for then you pile up information as you go on. If that is thought out carefully by your Secretary or your Program Committee you make instructive progress all the time. Very often I think as I see the reports coming in, there is no relationship especially between the succeeding meetings, no relationship from one over to the second and third and so on, or they are not thought very far in advance. There, it seems to me, is a great possibility to stretch the point that Dr. Curry made relative to post-graduate instruction, having it more systematically organized for that purpose.

Dr. Clancy: If there is no further discussion we will pass to the next topic, "Aids in Secretarial Work," by Dr. French, of Lansing:

Dr. French: Mr. President and Gentlemen: When this subject was forwarded to me I was sort of at a loss to know just exactly what was wanted. There are certain routine practices that every County Secretary has to carry out. The way we do it in Ingham county, we have probably a County Society a little above the average as far as membership is concerned, having a hundred members. There is a good bit of routine work connected with the Secretary's position, in fact, a lot of it, and I am not going to bore you with any of the details of the clerical side of it because I have assumed that "Aid in the Secretarial Work" means not necessarily methods of facilitating the routine work, but the general work of the County Secretary.

I feel that the Secretary of the County Medical Society is in reality a sort of an advertising manager for the Society. He has certain routine things that he has to do, but his real function is in the capacity of an advertising manager. It is through him that the meetings and the various activities of the Society are announced and advertised; and it is with that view that I am just going to say a few things. Now, since the first of January the average attendance for the Ingham County Society has been 55 and I feel that is a very, very good record after hearing some of the average attendance that some of the men have given here today. I cannot help but feel, without taking too much of the responsibility of that, that that has been brought about largely through my efforts in properly announcing and advertising meetings. The cards for announcing the meetings I usually send out two days before the meeting is to be held, so that they are received the morning of the day before, and of course the time and the place of meeting and so forth and so on is on it, as also the subject, and the speaker. I try to word it in some such way that the doctors attention will be drawn to some particular thing on that announcement and then they will read it all through instead of just noticing that it is from the County Society Secretary and throwing it in the waste basket. Something on there that will draw their attention and perhaps stimulate their interest. Since the first of January we have made the practice of holding three meetings a month. Two of them are scientific meetings, and at one of the meetings the speaker or speakers are local men. They either give a talk from notes or give a paper as they see fit, we don't put any restrictions on that. The other Society meeting in the month we have an outside speaker, we have had vari-

ous men, some men from outside of the state, the majority of them are very good men, either from Detroit or Ann Arbor. Then the third meeting, and I can't help but feel it is an important meeting, we have in the form of a noon luncheon and at the luncheon we don't have a scientific program. We generally have a speaker, a man come in to give a short talk on a non-medical subject, for example, at the last meeting we had the Superintendent of the City Schools who gave a short talk on the general management of the school system, and I know that there was a lot of information that he gave that the men absolutely knew nothing about and everyone appreciated, everyone enjoyed it. So at the noon luncheon, it is more with the idea of social and also having an outside man in. We haven't as yet, but we are going to have two or three of the noon luncheons during the year where each doctor will invite some friend of his who is a layman to attend the meeting. We have inaugurated the idea of some music, community singing, etc., and perhaps some other type of musical program. We find that the men are turning out very well. They apparently enjoy that type of thing.

I cannot help but feel that the great aids in secretarial work are first of all doing away with as much of the routine clerical work as you can and in the second place stimulating just as much interest as you possibly can so that the men will take some pleasure in attending these meetings. Those are the "Aids" that I think are the primary ones to consider.

There is only one thing about the routine work that I want to mention, perhaps it may be of advantage to some of the other men. In Lansing we have an organization there which is known as the Commercial Service Company, and they have on their files the Ingham County Society mailing list. Instead of either myself or my office girl making out the cards each time and mailing them out I telephone the Commercial Service whatever announcement I care to have sent out, with their multigraph apparatus and their mailing list those cards are sent out. I know they are sent out because I received mine in the mail the next morning. That relieves me of an immense amount of responsibility. Perhaps some of the men in larger cities that have organizations of that type, could use that to advantage.

One other thing which I think is the main thing as far as the advertising is concerned, to have the co-operation of the Program Committee; so that you are having meetings that the men will enjoy, scientific meetings that the men will enjoy. Then by some little trick of your own or whatever you care to style it, for sending out your announcements in some way so that there will be something there that will attract their attention and they will finish the reading of it and attend the meeting. There must be something of that type because the average attendance at our meetings has greatly increased just in the last four months.

There are two other things which I try to do which are of benefit to me because they advertise the Society, and I think they are a benefit to the State Society: After the meeting I make out a report more or less in detail depending on the nature of the meeting, and forward that to the State Secretary. I don't wait a week or so because I find that occasionally I forget. I try to do it the day after the meeting. These notices are also sent to our local papers and thereby we advertise legitimately the County Society. I don't call up the editor of the paper and tell him over the phone what it is. I take about ten minutes and dictate it to my stenographer, and she takes it down to the local papers and they publish it generally as I have dictated it.

I haven't attempted to bore you, as I said, with the details of the clerical part of the Secretary's work, but have just related a few of the things that I find will be of good aid. The idea of advertising, the idea of getting the Society in the paper, let them know that there is a Society, that they are having meetings and assisting the State Society as much as possible by getting the notices to them. I have noticed quite often in the State Journal that a great many of the Societies are never represented, they never have any notes in there, whatever. I think that other doctors see the Ingham County notes and know there is some activity in our county.

The advertising feature, as an aid to the Society and to the State Society, and the few little things that I have mentioned in regard to facilitating some of the routine work, was the message that I intended to deliver. Thank you.

Dr. Clancy: The Chair is going to ask Dr. Williams of Alpena to open the discussion.

Dr. Williams: I think the idea of the essayist on post meeting advertisement is a very fine thing. I think his idea of editing the account that goes into the paper has a great deal to do with the continued interest in the members of the profession, in presenting a proper and interesting paper, I think that is very fine. I know at one time a few years ago I kept clippings of what occurred in our own Medical Society, that had appeared in the paper and it consumed some columns at the end

of the year and some of them were productive of a good deal of interest and a good deal of discussion amongst our patients.

Another thing that is a distinct aid to the Medical Society is our own State Journal. We get a lot of ideas out of that Journal, particularly since we have had some little change in it in the last few months, about the quality of our meetings. We have endeavored to get in some outsiders to give us a little discussion. We are endeavoring to make exchange of our programs with other Societies. We think that in order to have our local essayists to do their best work, that they do not get sufficient publicity in speaking to the six or a dozen members who are there, that they are entitled to a more general hearing than we can give them in our local Society. We propose to send these papers to our State Journal, for their review and publication if they think best, and we propose also to ask essayists who carefully prepare papers to go out and give those papers before other local Medical Societies, providing we can make a reciprocity exchange with them for them to conduct meetings in our cities. We think that by these two means we can have the papers more and more carefully prepared and more and more of general interest.

Dr. Clancy: Will somebody else discuss the subject?

Dr. Van Leuven, Petoskey: Mr. President, so far in the discussion of the Secretaries from the larger towns, I haven't had my problem answered as yet. I told the Council in December I was fortunate or unfortunate in being Secretary of the deadest Medical Society in the world. I have been the Secretary for eight years. Maybe this condition is my fault, maybe it is not. We have had three meetings in eight years. There are several factors enter into that. These plans and talks and discussions we have had this afternoon don't fit my problem at all. A man lives in Flint with 50 doctors over there, more or less, you can get 25 of them out to a meeting. My district starts at Elk Rapids and extends to Mackinaw City; that is a distance of over a hundred miles and a territory 30 to 50 miles wide. We have in that territory about 40 doctors. The best membership that we ever had out of the 40 men is 29. Now, there are just ten men who attend who paid their dues this year in that big district. There is something wrong up there. Maybe they want a new Secretary. If they do they can have it. I have done all the clerical work I thought was necessary, placarded that country every time there was a meeting in Traverse City, Alpena or Cadillac. Nobody goes, for they don't seem to be very much interested. It may be that my territory is too big, and that the State Society could redistrict it, give some of them to Traverse City, and some to Cadillac. Maybe we can handle the north half. It is a problem to hold a medical meeting in Petoskey, Charlevoix and towns near by. There are doctors in every one of them, they will not come out, and I came down here on purpose this trip to see if somebody would tell me how we can get them out. The discussions at this dinner club are all right for cities like Flint, Jackson, Kalamazoo and Grand Rapids. They don't hit us at all. I hope somebody will be able to tell me before we go away tonight what we can do up in our district.

Dr. Stewart: Mr. President, I am from Houghton county. Houghton county, the district that I am Secretary of, includes Houghton, Baraga, Keweenaw counties, probably 40 miles in limit. As you all know, it is in the Upper Peninsula. In the winter time it is absolutely inaccessible. We haven't waited for the State Society to redistrict our place up there, but on alternate months we hold our meetings at three places. Calumet, which is 13 to 15 miles north of where I live, we hold a meeting one month. The next month we hold a meeting at Hancock and the next month at Houghton. In this way we keep up the interest of the men in these different districts. I offer this as a possible solution for the doctor who just talked preceding me.

I agree with Dr. French that one of the most important things is in advertising meetings and making these meetings of such interest to the doctors that they will come. I think that we should have a diversified program. I have a little plan on foot now for my next month's meeting which I have had for a month or two of giving a series of motion pictures, of diathermy and electric coagulation operations which the H. G. Fisher company of Chicago is willing to furnish us at no expense to the Medical Society. That always appeals to the members of the Medical Society when they don't have to lay out any money.

I also find I follow out Dr. French's idea of giving an announcement of the meetings to our papers, and also a report of the meetings afterwards, which I personally write up myself.

I found also that the simple placing of a placard on the day of the meeting, in the hospital, where all the men see it as they come in and register, has been a means of reminding them that we have a meeting. I would say that our Medical Society meetings are better attended. Why, I don't know.

Dr. Jackson spoke of the fact of taking up cases and giving these reports. I find that at every meeting on my program I have a place where I say Presentation of Cases. I find the men will present any interesting cases they have and they are fully discussed by the men present. We have our problems in Houghton county and we have tried to meet them. I fully believe that we should send in our reports of our meetings and show what we are doing, not only because it shows that we are active, but also the help it gives to the other County Societies.

Dr. Clancy: Anyone else?

Dr. Kudner, of Jackson: I think, for the most part, that the Secretaries are unnecessarily overworked. It seems to me we could get the President of the Society to appoint a few committees to help, it would be a great advantage. I think a Secretary ought to be on the Program Committee, but ought to have a Chairman, another committee for entertainment and so on down the line. I think that if the Secretary can direct the work and get somebody to do it, it helps a lot. They will put all the work on you if you will do it. I think it is a great advantage and then it creates an interest in the Society, to the other men, if there are committees. You ought to have a whole bunch of committees in order to create interest in the Society and also to help the Secretary and the other officers.

Dr. Clancy: Any further discussion?

Dr. Warnshuis: Mr. President, I have run the gamut from County Society Treasurer to President. This has been the perpetual problem that has come up before us year after year, not only here, but all over the state and practically all over the country. It seems to me that the only way you are going to get any interest in your County Society by your members is to create for

them some motive in which they are going to be interested, and which is going to call for some individual work on the part of each one of your members. I agree with you that the Secretary is overworked. The Secretary, I do not believe, should be a pen pusher or one who is answering the mail or sending out letters alone; he is the executive and the most important officer of that County Society. You will never find an executive in any business or any line of activity or industry, who is pushing; he hires that done or has somebody do it for him. You are the director and the taskmaster, but push the work on to the other fellow. The suggestion that was made by the two previous speakers and by those of you who have participated so far in this discussion, is committees. You must have committees and it is up to you. If there is anything that is going to be an anchor and a retarding factor in your County Society, it is a bunch of dead committees, who exist in name only, and do not accomplish anything. You want to pick from your members, men according to their individual characteristics and peculiarities, as well as their likes and dislikes, to form committees upon which they are going to serve. Then it is going to be your function to go and have a personal heart to heart conference with these men either over a high-ball or over a Bible, whichever is going to appeal to him and tell him just what he is to do and why. Then you have got to set up before your County Society certain things. I do not believe in being a calamity howler, but today probably the best thing that arouses a doctor or a group of doctors is to tell them they are going to lose out and they are only going to be paid public servants, and that the only way they can prevent themselves being paid public servants directed by a state taskmaster is to go out and do these various things that we as a state organization, and also as county organizations, have set forth as our program for the next few years. Get them interested in these community clinics; get a group of men, two, three or five members of your Society interested in something of that kind; get some of them interested in the work of your hospital and the activities of your staff and the relationship of your hospital staff and its free beds to the charity work of your county. Then get into the center of this so-called public health work so that you control and direct it and not that they direct or control you. The profession is relinquishing a large part of its responsibility to the public when it lets lay workers dictate to you what its health activities are, in your community. The profession should direct and guide these clinics. I am citing those few things to center activity upon and in which your members are concerned.

I said this morning that the scientific program has been and still will be one of the motives for which we exist, but Dr. Van Leuven, in your county, or in your district where you have had three meetings in eight years, I do not think are going to create a scientific program that is going to accomplish very much. A scientific program must be and will be for some time second and subservient to some other activities. Get the men in your district, two or three at first, in the form of a committee, interested in securing a county organization to inspire and stimulate the holding of some of these public meetings. Show by your reports how it is benefiting your members; then you are going to arouse some interest in your meetings. If you would advertise your meetings for the purpose, to discuss these measures and means, I think more of the men will drive out, especially if you will stress that it is affecting them, that they will drive to your meetings and help you build up. Then as you are having meetings you can commence to inject scientific programs. I realize in your counties that where there are only twelve men it is hard to get somebody to come over and talk to them, but yet in your adjoining county there may be also only twelve men, but one of those twelve men in the adjoining county may have had a paper or may have had an experience or experiences with certain types of cases so that he can come over to your county and tell you about them at your meeting. The same thing, some men in your county may be able to go out and help the county adjoining you and tell you about some similar experience, and so make a contribution to your scientific program. You cannot expect all the men to come from Detroit to these smaller counties that have a membership of from ten to fifty. You can do that in Jackson, Ingham county, Flint, and some of the other places, but you can't do it in your smaller counties. You have got to get together in a semi-social manner centering upon some definite piece of work that your men have determined upon that would make the practice of medicine in your county better for you and better for the people of the county and having centered upon that thing, put it across. When you have put one thing across and they see what you have accomplished and how it is benefiting them, they will join in much quicker in putting over the

other things and become interested in organizational work.

Dr. Clancy: Dr. French, will you close the discussion?

Dr. French: There are just a few things that I perhaps did not make clear in regard to the committees, a lot of that work is new to me. We have a very excellent Program Committee. The Chairman is a very active man and he has outlined a very good program for the year. There is no question but what active committees are an aid not only to the Secretary, but to the whole Society; we have got to have them; they are not only an aid, they are a necessity.

There is one thing that I did neglect to mention in connection with the notification of the meeting, that was that on the morning of the day of the meeting we telephone to the men of the city.

The doctor from Muskegon stressed the fact that the Society meeting was better attended than the staff meetings. I find that that is true also in Ingham county. I don't know of an exception when the attendance at the County Society meeting has not been better than at the staff meeting hospital.

Dr. Clancy: The next subject, "Community Responsibility and Work of the County Society," will be given to us by Dr. Kudner of Jackson.

Dr. Kudner: Mr. Chairman and Fellow Secretaries, Councillors: The trouble with having your paper come a little late in the afternoon is that everybody steals your stuff. I had a lot of good things down here, I thought they were good, but as the afternoon goes on somebody gets them off before I do. I hesitate about reading this paper and I hope nobody will go to sleep, however, it is not very long.

COMMUNITY RESPONSIBILITY AND THE WORK OF COUNTY MEDICAL SOCIETIES

What is the responsibility of the County Medical Society to the community? I believe the answer to this question can be summed up in the one word, "health." We, as physicians and members of organized medicine, are directly responsible to the people of our community for their good health. It is a burden which was placed on our shoulders centuries ago and which has continually become heavier as community life and medical knowledge have increased.

As new knowledge concerning disease is brought to life and we find new methods of its prevention, the problem of applying these methods to the community is ever before us and is ever becoming more complex. Thus, a greater number of diseases are becoming public health problems. The modern prevention of goitre in this state is a notable example. In the last two years we have seen how an old disease can become a public health problem, because of the discovery of its etiology.

Because we are the guardians of the health of the community we should be the "leaders" in these matters instead of awakening to find ourselves following the civic organizations in undertakings which rightfully belong to us. In order to do this we must be active as an organization.

Organized medicine and the medical schools are today the chief factors in the advance of medical science, the prevention of disease, and the improvement of general health. The County Society is the means of contact between organized medicine and the community and the medium through which all the activities of organized medicine are transmitted directly to the people. If a Society is not alive and active, that particular community will suffer, because it is out of touch with organized medicine and its program for better health. Therefore, it should be the function of every County Medical Society not only to maintain a high plane in the practice of medicine, to promote a feeling of good fellowship and high ethical ideas among physicians, but also to take an active leadership in all matters pertaining to the health of the community.

What are the methods that can be used by the County Medical Society to better the health of the community? I believe that the County Medical Society should take an active interest in the local Department of Public Health. They should urge the appointment of a well trained physician, see that he is adequately paid and has a sufficient budget with which to run his department, and above all they should give him the heartiest support and co-operation. In this way only, can we be sure of a pure milk, water and food supply, but also that all the details of community sanitation, and the prevention of contagion are being properly carried out.

As an organized group we should aid in the dissemination of authoritative medical knowledge among the laity. Every physician must admit that in order to discourage cults, quackery and pseudo-healers, it is only necessary to diffuse a small amount of medical knowledge among mankind. We can best do this by encouraging such magazines as "Hygeia" and by the use of authoritative articles in the public press. Civic organizations such as luncheon clubs, women's clubs and Parent-Teachers' Associations are usually very anxious to hear a good speaker on subjects pertaining to hygiene.

It should be the duty of the County Medical Society to provide these speakers. We should make it a point to have a medical

speaker talk to a public audience in the community at regular intervals, in order that the ideals and aspirations of the medical profession may be kept in the limelight. Along this same line, we should co-operate with the State Society and the University in the medical extension work they are doing, and offer our individual services when called upon to speak in smaller communities. This is a splendid work and will do the medical profession an enormous amount of good.

We should endeavor to teach people the advisability of a periodic health examination and be prepared to give them this attention. It is because the profession has been slow in taking up this phase of modern medicine that commercial institutions have sprung up all over the country which specialize in the periodic examination of urine specimens, and even the art and science of reducing obesity by mail. I believe that organized effort by the Society to educate the people to the benefit of periodic examination would give considerable impetus to this important movement.

The County Medical Society should endeavor to discourage the cults and healers not only by educating the people, but by keeping constantly on the alert so that no legislation may be enacted that may lower the educational standard of those who care for the sick.

The Society should interest itself in all charitable activities pertaining to health. It should see that the community provides proper facilities for handling the indigent, the mentally deficient, and the under nourished and under privileged child. We should be leaders in these matters and not followers, as it is only in this way that we can properly control these activities and curb the tendency of social organizations to put on clinics. I am heartily in favor of clinics for indigents when they are properly controlled, but I deplore the fact that other social and civic organizations have taken the leadership away from the County Medical Society in these matters, largely because we have been lax and have not appreciated the necessity of such clinics.

I believe the time is not far distant when the County Medical Society can no longer be an association for the benefit of physicians only, but should take an active and leading part in the affairs of the community, especially those pertaining to health. As an organization we can only do this if each and every member of the Society, as well as the Society as a whole, is active.

Dr. Clancy: Dr. Jackson, will you open this discussion. It is a great big subject.

Dr. Jackson: I just wanted to discuss what Dr. Kudner said about Rotary Clinics. I am interested in it because it is just being started in Kalamazoo county, and the subject was presented last night. I don't know as I quite agree or deplore the fact that it is not started by the County Medical Society. I think it is a pretty good thing. I think it is a part of the education of our public in medical matters that they start these things themselves. I am glad of it, I am glad to see the public interesting themselves in the problem of crippled children, and in other problems like tuberculosis work which has largely been taken over by the laity. I think we ought to encourage it. I think we ought to do everything we can to have people interest themselves in this line of work, but I do think that doctors sometimes make mistakes when somebody else undertakes something, to say they will have nothing to do with it. My notion of it is that we ought to encourage this work put on by various organizations, that we ought to interest ourselves in their effort, so that we can control the way in which the work is carried on. I think it is the function of the medical man, their responsibility in the community, to see that this is not something ephemeral. We should control it and see that it is actively productive of results. The problem of crippled children is a matter of interest. It is something that cannot be all done in a few weeks. It is something that has got to be controlled and we with our medical knowledge are in a position to guide and direct the laity in such a matter, and my plea is that we interest ourselves in such activities and see that they are properly carried out.

Dr. French: I just want to say a word in connection with the Rotary Club clinics. We have had two at Lansing, one last fall and the other one the year previous to that. The first one was put on by the Rotary Club independent of the County Medical Society. They had Dr. Kidner from Detroit as consulting orthopedic surgeon and the County Medical Society was not consulted about it. There was quite a little feeling on the part of the doctors towards the Rotary Club. About a year ago now, the question, of course, was brought up again as to the advisability of having another committee. It was fostered by the Rotary Club, but this time the committee appointed the County Medical Society, conferred with the Rotary Club committee and this joint committee, so-called, worked out the schedule. The thing was financed by the Rotary Club and the doctors of the County Medical Society volunteered their services. It was held at Sparrow Hospital. The doctors not only brought in cases that might come in under their care that they wanted Dr. Kidner to see, but they also spent whatever portion of the day they could afford to spend at the hospital in making a complete physical examination of the patient before Dr. Kidner saw the case. I wouldn't attemt to say definitely how many cases were seen. I think somewhere in the neighborhood of 200 were seen by the doctors. There was complete harmony between the Medical Society and the Rotary Club. The year before there hadn't been, this year it worked out very nicely.

Dr. Ricker: Mr. Chairman: I happen to be a Rotarian. I take the stand that the County Medical Society should look after this work. I feel that the County Medical Society, as it has been said by some of your representatives here today, should sponsor all health activities. Nevertheless, I feel as Chairman Jackson of Council says, that there is an education part of this for the laity. This was brought out very fortunately in the meeting which I attended last Thursday morning in which the

laity is becoming educated to the fact that this work can be done, and is becoming educated to the fact that there is a stigma being placed on the community in the form of a chiropractor who is throwing out his wires trying to hold these patients. There again is the educational part. I regret very much to hear a report from Hillsdale county, in which our Dean of the medical profession, who is also one of the Board of Regents, told one of the laity who is a member of the Rotary Club that there are no crippled children in Hillsdale county. I understand they cleaned up something like 125 in Hillsdale county. We, as a medical profession in some respects feel keenly what the doctor from Lansing said existed in Lansing. I know that in my own district the doctors have said to me, you don't want these orthopedic surgeons coming up here and letting the Rotary Club feel that there is only one man in Michigan on the job. You know there are more, but that particular man is the only one who can correct these deformities in children. The medical profession don't like to have the laity feel that there is only one certain hospital. We, as medical men, have to guard these conditions. The Rotary Club is working earnestly on this proposition. They have brought something before us as medical men that we are stunned at the results—I know I am—and our good friend Hugh Vandewalker, and Daddy Allen, the father of crippled children, both of those men are sold on the proposition. I know them well enough to know that they are confident that every medical man in the community is capable of doing his part towards taking care of these children, and their idea is not to belittle the medic. Let us be behind all of these movements, get behind all of these movements for crippled children or any other public health movement, be right with whoever is carrying on this program and advise relative to it, and I thing we will get results.

Dr. Curry, of Flint: Long before the Rotary Club took up the problem of care of crippled children we established an orthpedic dispensary.

Long before the Rotary Club took up the work in Flint, I should say about a year, perhaps a year and a half, we had a very active orthopedic dispensary. From that time on all the cases that they saw at this one day's consultation, increased by the activities of the orthopedic clinic down town so that we have been able to take care of the orthopedic cases that the Rotary Club has had anything to do with from that time on. We have kept them from going to Detroit and other places and undergoing the extra expense.

Dr. Darling, of Ann Arbor: One feature of this that I think has been overlooked: I attended one meeting in Ann Arbor and I got this impression that the real thing back of this movement by the Rotary Club was that a man became interested in the patient that he picked out or pledged himself to look after, and that the looking that patient up did not end the labor with that particular individual. He was supposed to see that that child went on to have proper attention and proper education.

Now most of the men who haven't had to do with orthopedics cannot realize the length of time which is necessary to carry on a proper treatment so that you may get results. I know what this is for I have worked at it for a number of years. It requires a long time, and the great difficulty with most all of this work is that the parents become dissatisfied or discouraged and after a year of treatment the patient falls back into the same line and the same trouble. I think if there is no other thing done by the Rotarians, they get this spirit and follow up, and the man that takes over this case will follow that through, the interest that that man will take in medicine and in the health of humanity is one of the greatest things that can happen. There is enough work for every doctor without his being afraid of somebody else doing some that he won't do.

Dr. Clancy: Somebody else desires to discuss this?

Dr. Wilson: I would just like to say a word. The question has come up in Muskegon the same way. The Rotarians put on such a clinic and brought in crippled children from various parts of the county, some very marked cases of hydrocephalus were brought in; one patient of mine that had been twice sent to Ann Arbor with atrophy following infantile paralysis, had been returned; said nothing could be done.

Many of the children that were brought in were beyond medical help and in those cases usually they were advised that the tonsils and adenoids be removed. The Kiwanis started a movement to take out all the tonsils and adenoids from all the children in Muskegon. I might say in regard to the work the Rotarians did, this was announced in our daily paper, and the chiropractors wrote to the Rotarians offering their services free. The Rotarians replied that their letter would be referred to the committee composed of Dr. LeFevre and a couple of others. The chiropractors immediately replied that they didn't expect an answer, which they didn't get. The Kiwanis Club then went on, took out all the tonsils and adnoids. At the present time the City Board of Health are running a series of infant clinics in all the schools, sponsored by the Parent-Teachers' Association.

We are paying a Grand Rapids man twenty-five dollars a day, one day a month, to come over and look over our tuberculosis cases. The question comes among the doctors over there, where is the end of this? Our County Poor Commissioner boasted that during this particular month, his bill for medical fees was $50 in a county the size of our county. It seems to me that there are but two classes of patients, the class that cannot pay and the class that can pay. The City of Muskegon and the City of Muskegon Heights and the County furnish physicians to take care of the indigent poor. It seems to me that there is much needless charity work being done. I speak from the opinions I get from talking with different members of our profession who say they are getting tired of all this charity work; we run a clinic in one hospital one month and take out a bunch of tonsils and adnoids; the next month they run it in the other hospital. The doctors who do the work do it gratis.

It seems to me as though there should be an end to that kind of work some place. Why is it that the individual feels that they can get the better service by going to Grand Rapids, Detroit, Chicago, or Rochester, Minnesota, than they can get at home. We have some very capable men in Muskegon, several members of the American College of Surgeons, men who do good work. Why do they go to these other places? They have no way of judging of the value of our services except by the fee they pay. They figure if we charge them $150 for doing that, they get twice as good a job from the man that charges $300. I am asking as a matter of information, where is this thing going to stop? Are we eventually going to limit our work to charity work or is there going to be some place to stop?

Dr. Clancy:

Dr. McKinney, of Saginaw: I think the danger of the motives of the Medical Society is so liable to be misconstrued, that it is well in all these movements that the Medical Society remain a silent partner. For instance, I don't believe in our educational plans we have made sufficient use of the motion picture. I do happen to know about the service that is obtained at the University of Wisconsin, in which it is possible to secure some very excellent motion picture films on subjects interesting to lay audiences. These films can be secured simply for paying transportation expenses, and I think it is an excellent way for the Medical Society to sponsor an educational movement by simply arranging to have these films for the use of the Parent-Teachers' Association, for instance, and at the same time remain absolutely in the background. I think the Medical Society will feel well repaid if the educational movement goes on even though the Society gets no credit for it.

Dr. Clancy: Anyone desire to discuss it? If not, I will ask Dr. Kudner to close the discussion.

Dr. Kudner: I did not mean to criticize the Rotary Club for putting on these clinics. I meant to criticize the County Medical Societies for being lax about these matters. I think that the Rotary Club, these luncheon clubs, are the ideal organizations to carry on these clinics and this work for the crippled children, because of the follow-up work. You not only have to cure these patients, but you have to educate them, have special schools for them. It is a wonderful thing for a business man to follow a crippled child through the treatment and also through school, a wonderful thing for the children, but it is a wonderful thing for the man. I am more concerned with the fact that we don't see these things in advance far enough to appreciate the necessity for these things.

It would have been a wonderful thing if the County Medical Society had suggested these clinics to the Rotary Club. Probably some doctor did. Of course there is always the question of where are these clinics going to end. Every time some woman wants to get her name in the paper she starts a clinic, and there isn't very much we can do about it. The minute we say anything about it they accuse us of being commercial and being afraid of losing our practice. I am heartily in favor of these clinics, but I don't thing that the profession ought to lose control of them. They ought to keep them well in their own hands and I think that all matters pertaining to health should come from the medical profession.

Dr. Clancy: Within the last year, owing largely to the thought that had grown very large in the minds of the medical profession of the state, a thought that sought greater things, an enlargement of the activities of the Society, gave encouragement to doing more than had been done before; and the very first requirement, the first demand made would be to create a larger fund to finance any enlargement of the activities of the State Medical Society, but when that was presented, as you will recall, it was very kindly received and the last medical convention acquiesced, believed that it would be a good thing, and the result was the increasing of the annual dues from each member. Some things were said, some things have been said since that convention or meeting of the State Medical Society for the purpose of endeavoring to carry to the minds of the members throughout the state, an explanation of why this was done, and some information carried to them concerning what would be done with this enlarged financial exhibit in the State Society treasury. The Journal was to be enlarged and it has been, and we have done some other things, but there was selected, as you all know, I am not telling you anything new about it, somebody to help out with the work of the Secretary-Editor. He comes here today with a lot of things. He does a whole lot of things, he chases all over. I don't know when he is very much at home, but he comes to us today particularly to present for our consideration the subject of Co-operation with County Societies. I desire to introduce the Executive Secretary, Mr. Harvey George Smith.

Mr. Smith: Mr. Chairman, Secretaries, Gentlemen: I have certainly been interested and delighted in hearing the discussion that has been carried on here in this meeting today.

When I do discuss this subject of co-operation, I turn my mind at once to the question of what it is, and that is the thing that we have been trying to define for so many years. I never yet have found a real good definition, but I know one thing, that when conditions are right, we can say there is co-operation, and when conditions are wrong we can say there is no co-operation. Just for illustration, over in Bulgaria, I know there is no co-operation.

I know that when somebody takes a machine up in the top of the Cathedral there for the purpose of blowing up a number of hundred of people, there is not very much co-operation going on in that country and in that community. I know, on the other hand, that had there not been that condition there, I would have felt a lot better and all the people, those 160 that were killed, would feel much better if they were living today.

Those are some instances of what co-operation is and what it is not. When I was working with the United States Department of Agriculture trying to figure out what co-operation was and what it was not, I usually found that there were certain sections here and there where an atmosphere of getting together was apparent, a desire to work together in harmony, to do something constructive. On the other hand, I very often found communities where that spirit did not exist and that for some reason we could not get it started.

Co-operation, after all, is a development, it is a growth, it comes out of the group. We are all parts of groups. That fact cannot escape us. We have our County Societies. We have our Parent-Teachers' Associations. There are an endless number of groups. It is out of these groups that various activities are devel-

oped and grow, grow for good or for bad. The medical group is one of the very narrow groups and consequently as a result it separates itself naturally, and easily from all the other groups. Not because the medical group wishes it so, but because of its usual, regular activity. As we think through this point of the group, we naturally come to that conclusion that if we intend to make progress we must begin within the group itself.

Who are the people that are going to co-operate? The medical profession is divided into its County Societies. They are organized into their state unit. It is related to the public, the public in turn is divided up into its various groups and factions, organizations and societies. All this is strata upon which to build and co-operate. Why do we want to co-operate?

This is a very pertinent question and one that you have discussed from various viewpoints today. One of the first points that you have made, and that is foremost with people throughout the state, is service. You are co-operating to serve your fellow man; you are co-operating to serve yourself. That must be done, and it is being done. If you forget to serve yourself, likewise everybody else forgets about you. You are not going to solve your own problems if you leave it to some other unit, group or groups.

To progress, however, we likewise must know the needs that are existent within each community. We should obtain pictures of every county and every County Society from a health point of view. The medical viewpoint and public viewpoint should be definitely portrayed. With these pictures we could consistently study that program that we wish to build in each county. We would know how to co-operate; whether to foster or whether to interest other organizations in carrying on one activity or another. I believe that all constructive work must start at its foundations and that it must be built up on these foundations. Each County Society must set itself upon its foundations and then start to build up from them as it goes on from month to month and year to year. The State Society is ready to take part in the building process with each County Society.

On this basis, the possibility of developing these various programs of activity is evident. In our own profession, we can constructively, over a period of a few months or a year, develop that science of medicine so that we ourselves are receiving direct benefits from week to week and month to month. Through proper and careful publicity we can inform the public, tell it what we are doing, and that we have no secrets to hide. The doors are open at any time for anyone to investigate.

If we take the public in our charge, likewise we can study it, and learn how we are going to do this community work to obtain the greatest results. Are we going in and advertise a series of meetings under the direction of the Medical Society, or are we going to suggest to certain groups and organizations that are interested in health, that we are ready to do our part at any time that the demand exists. The demand does exist. I was very much interested in what Dr. Williams said up at Alpena. I suppose I will be criticised for mentioning Alpena, because I used to be up there at one time. Dr. Cabot said to him, "You know, we don't take folks into consideration enough in our medical profession. We just go along and think we know," and Dr. Williams replied: "Yes, that is the case, that is true, but," said he, "here is an instance that actually occurred." He pointed to a community eight or ten miles out from Alpena where there had been diphtheria, now a case and then a case, causing much unrest, and yet, in spite of all, the doctors were unable to get that community to see that something ought to be done. A prominent citizen came in to Alpena and Dr. Williams suggested to him, it might not be a bad idea if they carried on a vaccination campaign out there and got all the children vaccinated; there might not be any more diphtheria if they did that. Immediately it developed an interest on the part of that layman. If it might be done, certainly it can be done, and if there is truth to this, why not look into it and get it done? As a result, all of those people brought in their kiddies three different times without a single one missing, out at the school house, out in the country, and that job was done.

This is simply an indication of what the right suggestion at the right time may do, and if one man can make that right suggestion, then it means there are 56 counties that have men in them who can continuously make those right suggestions for the good of the public, as well as for the good of the physician. The value of suggestion is tremendous. In most cases we forget about it. We are so busy on our jobs that we fail to take into consideration the other man's point of view and we rather begin to argue with him or try to convince him that he is wrong, in place of making the suggestion. The layman at the present time is not in a very good state of mind to argue. He is not well enough informed, in the first place, on the science of medicine in general to argue, but at the same time, if you should try to start an argument, he knows he can't argue the question and naturally takes an opposing attitude, or at best, is suspicious. I am very firmly convinced that the suggestive way of approaching the public is a much more wise way. It brings results. (I may say I don't think it would be a bad idea for us to review our sociology and our psychology as we ap-

proach these problems of organization in our relationship to the public.)

In our task, we must remember the public is surrounded with customs, suspicion, tradition, that come, not from a few days or a few years, but from a social heredity that has been passed down through the ages. Along with the education in our public schools, we have the social education passed by word of mouth, and that is what we are having our trouble about today. It is the retarding factor. While we have been going along in our science, discussing and building it up, making it much more effective than it ever has been, we have forgotten the public in its relationship to the science. Today, we yet have that suspicious attitude. It can only be overcome by careful and intelligent action. It means a very careful and thorough study of every community to obtain the right approach to the solution of the question. The State Society, as Dr. Clancy has said, and as you well know, is trying to help each County Society to solve these problems. If it is possible for one man to get around to every County Society in a year's time, I am going to try to do something of that kind. I haven't gotten very far yet. I have been busy at post-graduate conferences.

It is quite an essential thing for us to visit back and forth to strengthen the bond between every County Society and the State Society so that co-operation moves on a line back and forth, rather than just one way, because co-operation really is not co-operation if it only moves in one direction. It must move both ways. The State Society, in conducting the post-graduate conferences, is directly co-operating with each County Society. We hope, as you know, to have at least two of these in every Councillor District; that means with the County Societies of these various districts.

We are working on the legislative program. We have been carefully at work at it, quietly at work at it, and yet at the same time we have come to you for assistance. We have written letters, we have written more letters, sent telegrams, and some of you have wondered why all this agitation about legislation. The motive has been to protect the public and indirectly the medical profession. So far we have been able to secure results and we believe we are coming through to the end very safely. I must confess that it was a hard job for us to get all of you to work. It was a difficult task, and yet the greatest amount of good came when every section of the state of Michigan responded, not only one place, but when every part of the state was on the job; that was co-operation; that meant that the state was organized, that it was interested in the public health and not in one little section of the state. When we do write these letters to you, don't criticise us too severely, but feel that we are deeply and vitally interested in helping to solve one of the most vital problems that confronts every medical man of the state of Michigan, those of other states, and in the health of the people of the state of Michigan.

When the legislature is adjourned, we are to carry on this proposition, not in prosecution, but in education, community education in the sciences of medicine and health. So co-operation again in legislation, is the working together of the central Society with everyone of the County Societies and the County Societies with the central; the central must exist and it is the Clearing House for every County Society. We want to see co-operation, in reports, in special features of achievement in every County Society. Send your stories through your central office, and let your fellow man know what you are doing.

Another point in the way of suggestion on co-operation was brought up by Dr. Ricker or Dr. Williams. We have 56 County Societies in the state of Michigan; suppose everyone of those Societies had a scientific team to go out and meet with three or four counties adjoining. Two hundred twenty-four scientific programs can be given by this method alone. What a tremendous thing can be accomplished by co-operation of every Society with every other one and each taking over a certain amount of responsibility. Dr. Williams says, Bay City is going to Alpena to give a scientific program. May the co-operative germ infect each Society. Co-operation in your scientific program is going to bring unrecorded results. I think it is going to take the membership which stands today in paid-up memberships at 2,300 of a possible 4,500, to 3,600 or 3,700 doctors in the state of Michigan, and the more that we can get into this ring of co-operation, the more certain it is that the results are going to be bigger. So we have co-operation there.

Then we have co-operation with every individual doctor, and the State Society is always ready in any way to advise any individual doctor so far as it is able to do so. Every single doctor is to receive service. He is paying his dues into this Society and he ought to get something back, and we want everyone to get something back for the money that he pays.

These are some of the ways that the State Society is ready to co-operate with the County Societies and with the individual members of the medical profession of the state of Michigan. It is part of my job to help carry out this activity. Let us co-operate and put definition into an old friendly word.

Dr. Warnshuis: Mr. President and other Members of the Conference: Mr. Smith has set forth some of the ideas and program that we are trying to institute. We want, above all, the membership of our State Society to have this information, that while we have a

Council of our State Society composed of a member from each congressional district of the state, that forms the executive body of the Board of Trustees, or whatever you wish to term them, of our state organization, empowered to act in your behalf during the interim between our annual meetings. That Council meets at the time of our annual meeting and also had a mid-winter meeting. The Council has, during this past year, for the first time instituted and created an Executive Committee composed of the Chairman of the Council, the Secretary, and the Chairman of the three standing committees of the Council. This Executive Committee is meeting once a month and taking up organizational problems, meeting with Mr. Smith and myself and discussing the plans we are setting forth. We are trying to carry out your wishes and the wishes of the House of Delegates as expressed by your representatives who compose that House of Delegates, in putting forth an active organization in the state of Michigan. It is for that purpose that the Council and your House of Delegates authorized the employment of Mr. Smith. Mr. Smith, you might say, is our field man in a measure, and while he has only been on the job for a short time, having commenced to labor the first part of December, he has been familiarizing himself with organization work as it pertains to medicine He has been also concentrating a large part of his time in preparing the arrangements and conducting the Clinical Conferences that have been held in the different districts.

In addition to that, he has spent a considerable amount of time in Lansing, working in a very effective and quiet way, and one that has been potential, in presenting our rights to the Legislature. That is the type of work that Mr. Smith has been doing under the direction of the Executive Committee of the Council and your Secretary. It is now purposed, during the summer months, that Mr. Smith is go ing to visit, insofar as it is humanly possible, every County Society in the state. We purpose to have him come and meet with you and spend a day or spend probably a couple of days in your county with you as Secretaries, and the officers of your Society, going over your medical problems that are confronting you men, and to help, insofar as possible, in outlining for you a program in your County Society that is going to interest your members. He will endeavor to put across some organized activity that is constructive in each county of the state.

That is what Mr. Smith is going to do, and start out just as soon as it is possible and go around just as rapidly as possible.

When he comes into your county I know you will not have to bespeak for him any reception. I know you will give him every cooperative assistance that you can. I think your Executive Committee of the Council is very hopeful that that is going to produce results. Mr. Smith and I are at the present time engaged in trying to make a survey of the state of Michigan, and ascertaining not only population and social surroundings and economic conditions, but also to ascertain the advantages or the opportunities that exist for the people to obtain medical service of a modern type, and we are going to take up that work and help you in that line, as well as the people of your community in providing a type of efficient medical service for the various counties through the state.

We are going to ask you to help Mr. Smith when he comes into your county, to go over to that county or location with him and help show the men that they have to render service to the community. This is a little addenda to what Mr. Smith has had to say.

Now, Mr. Chairman, we have come to what I consider the most important part of the program, and that is this Round Table discussion. We are going to sit around and talk of some of the actual realities that you are engaged in in your organization work. The first subject under that is Membership, New and Delinquent. I may say, by way of opening, that there was some doubt expressed as to whether we were going to lose members because of the raise in dues. I am very happy to announce that up to the present time our collection of dues at this time of the year exceeds by now almost 500 dues that have been paid in previous years. Our members are not dropping because the dues have been raised to $10. They are realizing that we are trying to do something for them. There are approximately in the state 4,000 doctors, and we have in round numbers approximately 3,000 who are members of our state organization, leaving approximately 1,000 doctors who are not affiliated with our organization. Out of that thousand must be taken certain men who are connected with corporations who are not engaged in active practice. Some of them are connected with schools and are not engaged in active practice, and then there are a certain number of them listed as doctors ineligible for membership. There are approximately, in my judgment, somewhere in the neighborhood of between 600 and 700 doctors in the state of Michigan who are not members of county organizations. The problem I want each one of you take up just at this moment, the thing that Mr. Smith is going to take up with you when he comes to your county, is New Members. What is the reason why you have in your county five, ten, possibly twenty-five doctors who are not members? Will you tell us right now, each one as rapidly as possible? Dr. French.

Dr. French: I think there are about four

or five doctors in Lansing, I am speaking of the city now, that are not members of the County Society and I think I can safely say they would not be eligible.

Dr. Warnshuis: Will the rest of you men give some of the reasons? That is what we want to know and find out why some of them are not members, and how you could start, as soon as you return home, to get these men in, or secure the reason why they are not members.

Dr. Highfield: There isn't any one thing that will answer that. Sometimes a man is sore. Another time he is old and don't care to take any active part; he hasn't got a very big income, he don't want to pay the $10. There isn't any one thing that will answer. And sometimes a man is so far out of the usual routine or distant from the center of the activities that he cannot get to a meeting and he don't want to bother to pay; a different answer for each individual, I think in my three counties.

Dr. Williams: I think that the basis of each organization is the qualification for membership. Our own Society solved the difficulty by establishing a certificate of membership—not a certificate of membership, but an application for membership, which reads that the applicant pledges—and this was made particularly for those members who had been expelled previously from the Medical Society and their friends who did not care to belong who were made sore, we got out an application for membership that said that they applied for membership in our Society; that they pledged to uphold the principles of ethics of the Medical Association, and so on and they signed their names to it. These members which had previously been expelled from the Society, for instance, it was a thing that put the matter over, and the three members of our medical fraternity who had previously not been acceptable to other members, were admitted on that and it had a wonderful influence on the feeling of the Medical Society and the feeling of the people of our city. The people of our city appreciate the fact that our medical men are a unit and it must be attempted in the spirit of conciliation and fellowship in order to be put across, and the Society is fortunate it has a President who is given to that spirit of conciliation, who wants all the members of the Medical Society who are members in the county as real members of the Society. I think many of these Societies if they would have that spirit of conciliation, give and take, that the thing would be quite naturally settled.

Dr. Warnshuis: May I ask the question: Have you men, as Secretaries, made any effort within the last year to approach these men who are not members?

Dr. Shackelton: As far as Kalamazoo is concerned we have just one delinquent. On the 18th of March, or just prior to the 18th, the Executive Committee had a meeting and authorized the Secretary to draw up a letter and send to men who had not paid their dues. That letter was sent out as a registered letter, with a return receipt. Every man with one exception came across with his dues; that exception was a man who has been habitually delinquent. He applied for reinstatement last December, he paid his dues for $10. He wasn't accepted into the Society until January, at which time he was notified he was a member and also paid the dues. He has refused to pay the additional $5. Each physician in the three counties who is not a member of the Society has been listed, and that list has been turned over to the Membership Committee. As I have mentioned before, we have at the present time three men who want to make application to the Society, but are hesitating simply on the question of professional ability. The rest of them are undesirables, are people who retard the practice.

Dr. Stewart: I might say in Houghton county we have about three non-members, I should say probably five, two of them are undesirable, and one man is of the same type Dr. Williams spoke about. As to getting in new members, we have taken in four new members this year. They were men that recently came into the county. I make it a point to at least ask these men who come in to join the Society, and the ones that have not joined it are just temporary assistants at the mines. I might say that there was quite a bit of kicking on some of the men on the increase in dues.

Dr. Brush, of Port Huron: In St. Clair county we have possibly seven or eight that do not belong to Port Huron. Three men in a little village about 18 miles from Port Huron don't belong. I don't know of any reason why, because there are a couple of men in the same town that belong. They come down occasionally, and one man from Capac, about 30 miles, comes occasionally. I believe there are a couple of doctors there who belong. I can say at this time that when Mr. Smith visits our county I will be glad to spend a day and go with him and visit these men and see what can be done. I don't know of any reason why possibly six or seven of these men couldn't be gotten into the society.

Dr. Warnshuis: Do you feel, gentlemen, if we send to you as Secretaries a letter asking for the list of names of men in your county who are not members but are eligible, that if we should address to them from the state office a letter inviting their interest in your County Society and telling them why they should become a member, that that would be an effective manner in which to attack this problem of securing these other men?

Question: How will we know they are eligible?

Dr. Warnshuis: You will know pretty well. Somebody knows John Jones, you know in a measure what type of a man he is and how long he has been there and whether he will be an eligible man.

Question: You mean the men that we think—

Dr. Warnshuis: That you think are eligible.

Dr. Warnshuis: I do feel that that would be a desirable way for your state office to aid you in securing these non-members who are eligible in your county.

Dr. Van Leuven, of Petoskey: I think that that would help my situation a whole lot. I think that if they can be gotten to see the light we can clear the atmosphere. It might be if a letter written to them telling them the advantages of joining the State Society that that will do some good.

Mr. Smith: I took a little time the other day to get some data together. For instance, I took 60 towns and cities of Michigan, cities all at least having 1,500 population or less. The average age of these doctors was 53 as recorded in the 1923 directory. Then I went down to a number of counties, Antrim, Emmet, Charlevoix, Barry, Berrien, Branch and Calhoun counties and found 198

doctors who were not members. In those counties I had the opinion as has been expressed today, that the members, the doctors who were not members would be of a very high age compared to those who were members. This is what I found. I thought I was not right so I checked my figures again. The age of those who were not members 51.2 against 53, the average age of those 60 towns, which is a rather interesting thing. I noticed as I went through that there were a great number of men, quite a number, some of them 29, 28, I think, was the lowest, who were not members of the County or State Society. So it looks to me as if we have a good job ahead here in getting in at least all the young men, it seems to me that practically all of those that are not members are really young men.

Dr. Warnshuis: The main thing in regard to this membership, new and delinquent, is that we will send to you in the course of the next month, a letter giving a list of the medical men in your county who are eligible for membership, or who have become delinquent this past year. We are going to try and write them a nice letter that is going to encourage them to re-affiliate themselves. We have an application blank, a standard one, which we will enclose. Then we are going to ask you, after we have written that letter, to do a little personal follow-up work and see if we can't get in these some 600 men who should belong.

The next step on the round table of this discussion is Committee Work, Methods.

Dr. Kudner: Mr. Chairman, I had a man the other day applied for membership in our County Society, who is a graduate physician as an M. D., but is now practicing Osteopathy.

Dr. Warnshuis: The only answer I can make to that is that you, as a County Society, are the judge. However, the application blank that he signs states in that that he is a graduate of a reputable College of Medicine, licensed to practice under the laws of the state of Michigan, and that he will not practice sectarian methods. I don't think that man can very well come in unless he will agree to sign that application.

Dr. Clancy: Where are you going to draw the line?

Dr. Warnshuis: There is nobody today that is a real alleopath, any more than there is a homeopath. We are known as "regulars," or doctors. The next topic is Committee Work —Methods. Smith, will you just say what we have thought on that subject?

Mr. Smith: In this field we are hoping to get more of the committees organized and worked out so that the problem will go along on a committee basis, the committee on County Societies to carry on their various activities that you have already discussed and worked on today. The job as I have seen it coming through these various societies, is just simply one of burdening the County Secretary. He seems to assume the responsibility in most cases and it just buries him under. He doesn't get the various members of the Society at work, and the key note of any Society is to get everybody working. The committee basis is the one, of course, that gets everybody on the job. If you haven't the work for him, find some work for him to do, put him on a committee and make him work. There has got to be something done by everyone of these committees. The membership committee is a very important and mighty useful one because it is the one to canvass your membership and to see your delinquent members, and get your dues in on time, increase your membership, that is a vital thing, rather than, for instance, that we may have to drop out four or five hundred. It would be much better for that committee, everyone to be on the job, to get everyone in on time, nobody dropping out, then we will have a harmonious Society throughout the state. That is the membership committee's job. It is difficult for us from the headquarters to get in contact with every committee. Of course, when we do go out to visit these Societies, it will be our job to help brush up these committees through the secretaries.

Another thing I had in my mind on the program committees was getting these committees organized and then giving them a job to work out their program from an organized, systematic point of view.

We also will divide up your membership on that committee, may divide the membership into two parts, three, four or five, as it finds advisable for the carrying on of these constructive programs. Your social committees develop social relationships between your Society and the various other societies in your community. I suppose there is no single committee that you are going to appoint in your Societies during the next few years that is going to be of more aid to the Secretary than that community committee. It is the newest job and it is the most difficult job, and yet the most careful job. No one from the outside can come in and tell your community exactly what to do. Another thing, the one that Dr. Warnshuis brought up and you discussed, is this physical examination. Publicity, also, is an important activity. We will get to that a little bit later.

Dr. Warnshuis: Is there any member here that wants to know anything about committees, or have anything they wanted to state about work they are doing in their own county, that is going to be helpful, or aid us in putting this thought before the entire state.

It all resolves itself down into the question of securing the right committee, appointing them and becoming responsible for their activity, and you acting as the prodder that is going to make that committee work. I don't know of any one thing besides doing that that

is going to accomplish committee results. Then you must arrange a definite time in your program for the hearing and discussion of that committee report. Often the report is received and you are so anxious to get on with what else you have on for your meeting, that the report appears as a matter of record.

Dr. Warnshuis: Does anybody want to say anything on the subject of Attendance and Methods of Securing? It has been covered partly and fairly well in some of the things that the speakers have said before. The only way to secure attendance is to stimulate and arouse interest and to centralize upon activities.

Dr. Jackson, of Kalamazoo: I just want to say a word about the suggestion that Dr. French made about the use of telephone. Many men get the program and then they don't read the date or they don't pay any special attention. If an officer could call up some men on the telephone it sometimes helps a lot.

Mr. Smith: I just want to emphasize Dr. French's method of getting out his announcements. I don't want to belittle what anybody else is doing in the way of announcements. I know this and everybody knows it, if you get a good snappy announcement in your hands you are pretty liable to read it. The same announcement coming in every time loses interest. I don't know how Dr. French has worked the thing out. I notice everyone of his cards that comes into the office has something a little bit different on it. It is snappy, peppy, and that is, of course, one of the big things in bringing out a good crowd. Develop a curiosity in the mind of the doctor as to what is this thing that is going to happen. Each time it is a little bit different than the one before. They develop that curiosity and they keep on going. I think Dr. French proved that by getting his big attendance.

Dr. Warnshuis: I am going to skip one subject and take up this subject of automobile emblems. You may wonder why that was put on for this discussion now. We have had, from time to time, from different parts of the state, suggestions and requests that the state organization adopt some kind of an insignia that can be put upon the doctors' automobiles. I personally am not sold either one way or the other upon the subject. The American Medical Association have just recently adopted a new emblem. Is it going to be of any value to your members; is it going to be of any value to the profession, to the public, if you carry on your automobile an emblem which becomes and is known as an insignia of the medical profession?

Dr. Kudner will discuss that.

Dr. Kudner: I think the reason that most of us object to the old emblem was that nobody knew what it meant, and I think if they are to derive any benefit from these things, that the ordinary Irish cop ought to know that that is the insignia of a doctor. Most of them do not. Personally I would like to see the American Medical Association adopt a new emblem with some kind of a cross on it or some such thing that we could all use and would be a standard emblem we could all use. I think they do help in the cities, they help a whole lot because many times I have looked in the mirror and found a traffic policeman following me; as soon as he could get up close enough to see the emblem he would turn around and go back.

Question: What kind of an emblem is that? (Laughter.)

Dr. Kudner: In Jackson county we just have a little cross, made down in the prison. We give those away with each membership. Most of the doctors have them on their cars and it does help a whole lot in parking and stepping over the speed limit a little bit. I am in favor of them, but I do think they ought to be standardized some way.

Dr. Warnshuis: Dr. Kudner, the American Medical Association has adopted a new emblem. The other one, unfortunately, was never copyrighted; some commercial firm took it over and started competition. The new emblem has a cross on it as well as an "M. D." It can be put on the front of the radiator, as well as on the rear alongside of your license number. Furthermore, that emblem is numbered. That emblem will be registered in your name. I know Mr. Braun, who is in charge of that work at the A. M. A., will very gladly, although I haven't talked to him, let us have that emblem and I think it can be so devised that we can put on "M. S. M. S."—Michigan State Medical Society. Do you men feel that that would be a good thing?

Dr. Curry: It worked out very nice in Flint. We have used the Red Cross for three or four years and we have local registration. Our crosses are about four inches square, they are placed over the license plate in the front. We received 130 of them, and we simply registered the men of our own Society. It would help a good deal to be able to park in 15 minutes limit space.

The men in our district almost universally are using the caduceus. The chiropractors up there have put on their cars the white cross, consequently the caduceus distinguishes you from a chiropractor.

Dr. Warnshuis: Would it be well for us to try to enter into some such arrangement and adopt a state emblem which would become known in Detroit, Flint and Jackson, as well as up in the third "Anesthetic district territory?" Do you feel that that would be a good thing?

Question: Would that necessitate changing the present system where it is already in use?

Dr. Curry: I think we could induce them to switch.

Dr. Warnshuis: We will take a referendum on that and then see what the expression is and be governed accordingly.

Publicity. Dr. Jackson told you what the Joint Committee on Public Health Education was doing in the way of public lectures. A week ago Dr. Jackson was appointed as chairman of the special committee of that Joint Committee to consider the problem of newspaper publicity. Dr. Jackson, do you want to say anything further on publicity from the standpoint of our organization?

Dr. Jackson: I don't think I have anything further to say at the present time, except that I think that the general problem of publicity through the press deserves our attention. I haven't any solution of the problem at the present time. I think that there is a great field for discussion of information on medical matters, through the press, and that you all as County Secretaries should consider this and offer constructive suggestion to your committee.

Dr. Kudner, of Jackson: Why wouldn't it be a good thing to have a source of these articles,

That is what this committee was appointed for. We could give to the papers from time to time. somebody that would give us these articles that I think it would be a very good thing if we could get these articles.

Dr. Warnshuis: Jackson County, Ingham county and one or two others, have written in during the past year asking advice regarding the County Society engaging in a campaign of newspaper publicity, or paid advertisements. That is a subject which entails a lot of thought. There are a lot of important matters connected and associated with it, one cannot very readily give a definite answer or advice to the County Society, and I have been somewhat evasive in the answers that I have made to their inquiries. Something like two years ago the state of Texas, through their State Medical Society, spent several thousand dollars in newspaper publicity and paid advertisements. The money has gone and nobody can say what is the result, because it is not like as if you had a bottle of hair tonic you were advertising to sell; the sales from your advertising indicates the success of your advertising campaign. It is what you might call good-will or public education advertising. You cannot say at the end of any given period, our results have been so and so, whether it has done good or whether it has accomplished anything at all or whether it has been money wasted. Even the men of Texas decline to make any appraisal in regard to the matter.

I personally am inclined to think that paid advertising, except as now and then you may want to buy the good-will of the editor of your paper, is of little value, and I think that if you work the problem rightly, that you can get advertising through the news section of your paper without any expenditure.

Now, the question as Dr. Kudner says, who is going to write these articles, who is going to censor them. In the first place, no newspaper will publish such an article unless there is some authority upon which it is based. The moment you print in the Jackson paper that Kudner says so and so, the other 159 members in Jackson county will say Kudner is just blowing himself up before the galleries and immediately there is a jealous spirit. That can be gotten around, I think, in a measure, if we establish, through your County Societies, a publicity committee, that did censor these articles and did select them and did secure their publication, by having it vouched for and authorized to your local editor as coming from the Jackson County or some other County Medical Society. Of course, there is the objection again that newspaper men will bring that they don't care what you as a group say, they want the individual or the personal element. I think that can be overcome when we are as we are now bringing before the public what organized County Societies stand for and are attempting to do, as authoritative source for these articles.

The suggestion was made a week ago, or will be taken up by the Executive Committee of the Council at its next meeting in May, that we secure articles or a group of articles and pick out the right type of articles that apply to Michigan and send them to you men and have you put them into your local papers. Is that going to work?

Answer: That will be all right.

Dr. Warnshuis: Isn't that the type of publicity we want? Putting it under the authority of the Tri-County, Kent County, Wayne County, Saginaw, or whatever County Society that covers that territory.

Question: Would that be as coming from the Gorgas Memorial?

Dr. Warnshuis: No, it will be as coming from your County Medical Society.

On the other hand, what has the American Medical Association done? It has the magazine, Hygeia. It is a very expensive proposition, this extension work. To put that magazine over is an expensive thing. They have lost this last year many thousand dollars. Not lost, have expended over and above receipts something over $30,000 on Hygeia.

Dr. Clancy: I would like to know just what you mean by publicity; is it just publicity or public health education, does that cover the subject?

Dr. Warnshuis: The plan that I conceive—I don't know as I can give you all the light—I conceive medical publicity to be of an educational type; to convey to the public that there is such a thing as a germ and that germs produce disease; to convey to the public the means and measures by which an individual is afflicted or become afflicted with tuberculosis; and the means and measures that have been under modern scientific investigation and experience, to be the curative one. Also to convey to them the foolishness of trying to palpate or manipulate any vertebrae or rub on any kind of medicine in the form of a linament and buying any electric pad or belt, or taking any sort of concoction that somebody may have gotten up, that is not effective. To acquaint them with the truths in medicine, as to the cause, the course and the means that are proving available for the treatment and relief of physical ailments.

Dr. Clancy: Isn't that pretty much covered in your public health course, educational course?

Dr. Warnshuis: To a certain extent, yes, the point is this, Dr. Clancy, that all the people don't get to those meetings.

Dr. Warnshuis: Especially on the cold winter night when they take either the metropolitan or rural paper, and they sit and read it from the upper right hand volume number and issue number to the last advertisement. You are going to get information across to newspaper readers that you wouldn't get to them by any other means.

Question: Does that apply to salt?

Dr. Warnshuis: Iodized salt, the same way.

Dr. Clancy: Isn't there the danger of bringing us in the minds of the public into competition directly with the cults because they advertise, and we come into the field telling just what we have and that they must not do these things. That ours is the only genuine time in the well and labeled course of procedure?

Dr. Warnshuis: How are you going to get the knowledge to them otherwise?

Dr. Clancy: I am simply asking questions.

Dr. Warnshuis: In the first place, if you attack any patent medicine or chiropractic through any publicity information which you may furnish the press, the press won't print it because that is the way they make a living, carrying advertisements.

Dr. Clancy: That is what I understood by it.

Dr. Warnshuis: We are going to give the public credit for some intelligence, and after having been proven that these scientific methods are going to give them the best results, and say nothing about the cult or the drugs at all, if we can get that education to them they will draw their own information that these other things are valueless.

Dr. Clancy: If the public comes to understand, and I think it does not quite understand at present, that that work which is being done by the regular profession represents the latest scientific thought and all that has led up from the past to the present in the care of the individual, the human being, just through the results and the fact that it is based upon something definite, scientific; if we get that to them I think the public may very properly be left to make their own selection. I do not feel that we ought to engage in anything that is in any sense dictatorial. Leave it to them, and if the public becomes convinced that the regular medical profession is made up of educated people, men who are educated in that work, the most highly educated, the most perfected methods, leaving them to judge whether those methods are the most perfected or not, but based upon the great principles of education, I think that we will regain some of the confidence of the public. I don't like this idea of coming into competition with others engaged in the care of the sick.

Mr. Smith: This question of publicity of course is probably as important as anything we can discuss. As a layman, it seems to me that the Societies are missing a wonderful opportunity in reporting their own activities. You may get into your meeting that so and so was there, it was well attended. That is not what the public is especially interested in knowing. It is what you state and what the speakers state regarding the medical profession that the community wants to know, that is, the community is educating itself and raising itself to higher levels. You naturally must drop into your news item the thing that will lead the public to know the thing it wants to know. The same thing is true of your various hospitals distributed throughout your county. They contribute money to them, you don't inform them what is going on in those hospitals. Just that information in itself is a wonderful contribution to the Medical Society.

Dr. Clancy: And it is a contribution to the public at large as well at the same time?

Mr. Smith: Exactly. It is the news of every local community that the people want to read about.

Mr. Smith: I would like to know, for instance, supposing here during the past year, important facts have been brought out on insulin or methods of treating disease, I don't know your diseases, but take the things about tuberculosis that have been done for ten years. The public would like to know, feeling that it is as safe in Michigan as it is in other parts of the country. You don't have to go through all the details, but it likes to know it is being done.

Dr. Clancy: Mr. Smith, from a layman's standpoint, what proportion of the people in this country understand that the tuberculosis patient can be as well cared for in Michigan as elsewhere?

Mr. Smith: I don't know.

Dr. Clancy: I know, but what does the public understand, the public in general. You can meet lots of people, everyone of you, I believe, I know it has been my experience, hold back in their mind the idea that those cases go some place else to be treated. I don't know whether that is within your experience, I know it is within mine.

Mr. Smith: That is true.

Dr. Clancy: If the people could be brought to a realization that in Michigan the tubercular patient will recover, with as good a chance as elsewhere, and that is a contribution from the medical profession, made possible through the work of the

medical profession, it ought to elevate and increase the confidence of the people in the work of the medical profession.

Mr. Smith: I think the fact for instance saying there were so many fractures and they were set up in a certain hospital, is information that people like to know.

Dr. Jackson: I think Mr. Smith has touched on something which we might consider. He certainly has a different slant on it than we have. For instance, that if some doctor comes to your local Society and talks about insulin, he tells you about the use of insulin; the public know there is such a thing as insulin, many of them don't know what it is, don't know how it is used or what it does. The public want to know. Mr. Smith is quite right about it. I think if you had somebody come to your Society and talk to you about insulin, an extract and resume of what that doctor has told you, perhaps some elementary things, that you knew before, that the public would be interested in it. The public would be interested in knowing what Dr. —— is doing in his laboratory in Ann Arbor. I believe Mr. Smith has hit the nail on the head.

Dr. French: I think that if we would publish not too scientific a resume of the talks that are given, it would do away with a lot of this humbuggery that goes on that the doctors practice, for example, a case was brought to my attention at Lansing of a doctor who was treating his diabetics by giving them medicine every Saturday night.

Dr. Clancy: Whenever they took a bath.

Dr. Ricker: Mr. President, a Grand Rapids paper has been running articles the last year with different things in it, among one of those was chlorine. A Grand Rapids paper explained chlorine. People commenced coming into your office asking for it. They are doing the same thing on physio-therapy, and helio-therapy. Dr. Randall, at Flint, gave forth an expression there which I think we should profit by, that is, that all of these things are the things that belong to the medical profession, and the cults are going ahead and using them. If we as surgeons, or internes, eye, ear, nose and throat men, are in a position to do that work ourselves, otherwise see that there is somebody in our office that can do it, because the newspaper publicity along these lines is getting pretty strong, and people are coming and asking for it. We as medical men should supply it.

I think those articles running in the Herald are doing a lot of good.

Dr. Warnshuis: That gives you men a thought then along the line of publicity, what we are thinking of as a state proposition, and something which you can employ as a local proposition. I think Mr. Smith and Dr. Jackson and the rest who gave expressions to their opinion, are right; with that knowledge then the whole channel of society would be changed, I am convinced of that.

That, Mr. President, as far as I am concerned, concludes our program. While the time is not late, if there are other things, I am sure that you will see that they are brought up for discussion.

They do want to know what John Jones talked to you about at the last meeting. It is going to be a fairly simple thing for you as a Secretary or for somebody as a reporter, if you so wish to appoint him, to give a resume, they want to know about the scarlet fever, this so-called preventive inoculation, you can give that to them, that is valuable information and educational information for the public. That is placing before them enlightenment as to the fund of knowledge that we have, that is available for them. If the public as a whole could avail themselves and would avail themselves of that fund of information.

Mr. Smith: In order that I can get more quickly adjusted to the meeting, the various County Societies, and know when the meetings are, and also to get a little information, I have prepared this report blank which I might send to every Secretary. Those of you who are here today might just as well have them now. I feel that this is quite an important thing to bring together information. (Reads from the blank). That is not a whole lot, yet you will notice that every bit of that is very important information when we bring it together for the whole state, for we get something that will be very, very valuable.

Dr. Clancy: Mr. Smith, these are expected to be considered as annual reports?

Mr. Smith: No, just an intermediate report of what has been done since the first of January.

Dr. Clancy: For the future.

Mr. Smith: We will get up something different.

Dr. Clancy: Is there some other business gentlemen, before you adjourn; something else you would like to bring up at this meeting. We have a few minutes that we may give to some other matters if you desire to bring them up.

Dr. Kudner: I think it would be a good thing to hold these meetings twice a year, one at the time of the State Society meeting and one in between.

Dr. Jackson: Mr. Chairman, I am very much interested in that remark, I would like to know how you men feel about it. We have tried as a State Society, we did try as a State Society for a number of years to have a dinner meeting during the session of the State Society, and it was never a success, we had about a half a dozen fellows there. How many of you men who are here today would like a dinner meeting at the next meeting of the State Society? We might take a referendum on it.

Dr. Clancy: Is there anything further, gentlemen? If not, a motion to adjourn—

Dr. Warnshuis: I move we adjourn, Mr. President. (Supported.)

Dr. Clancy: Moved and supported that the committee adjourn. All in favor say aye.

Aye.

(Meeting adjourned at 5 p. m.)

The Journal
OF THE
Michigan State Medical Society
ISSUED MONTHLY UNDER THE DIRECTION OF THE COUNCIL

PUBLICATION COMMITTEE
R. C. Stone, Chairman.....Battle Creek
C. D. Darling.....Ann Arbor
J. D. Bruce.....Saginaw

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Grand Rapids, Michigan

Entered at Grand Rapids, Michigan, Postoffice as second class matter.
Acceptance for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917, authorized August 7, 1918.

All communications relative to exchanges, books for review, manuscripts, news, advertising and subscriptions are to be addressed to F. C. Warnshuis, M. D., 4th Floor Powers Theatre Building, Grand Rapids, Michigan.
The Society does not hold itself responsible for opinions expressed in original papers, discussions, communications, or advertisements.

Subscription Price—$5 per year, in advance

JUNE, 1925

Report Malpractice Threats Immediately to Doctor F. B. Tibbals, 1212 Kresge Building, Detroit, Michigan.

Editorials

COUNTY SECRETARIES' CONFERENCE

Elsewhere in this issue there will be found the official report and transcript of the discussions of the County Secretaries' Conference that was held in Grand Rapids on April 22nd. We want not only every County Secretary to read this report, but we also want every member to do likewise. This Conference had for its primal purpose the discussion of plans and ways whereby our state organization might be more effective and contribute in a larger degree to the advancement of the interests of each member. The session lasted from 10 o'clock in the morning until almost 5 o'clock in the afternoon. The earnestness and eagerness of these County Secretaries was most inspiring. It was ever apparent that they were thinking and seeking the better things so as to more effectively increase the purposes and functions of each County Society. They contributed their time and loss of professional work to organized medicine and for each doctor in Michigan.

It is by reason of such loyalty and the quest of what is best on the part of your secretary that slowly, but surely, our Society is commendably acquitting itself of its responsibilities, not only to the membership, but also to the public. Many of our members give little thought or recognition to the contribution that is made by their local secretary. Scant appreciation is frequently shown for the efforts your secretary makes and by reason of which you, doctor, benefit and profit. Your secretary is your most important officer. Your secretary is the directing power of your Society. Your secretary labors and plans for you. Little thanks are his, sometimes a small honorarium, but more often "kicks and cussing."

This should not be so. You, doctor, for one, should start now to bring about in your own County Society a more manifest spirit of willingness to aid your secretary. Help him plan your programs, get on committees that will take over the activities that your Society should carry on and see that your committees work. Pay your dues promptly so that your secretary will not have to assume the role of collector. During the meeting, make a synopsis of the papers and discussions and hand it to your secretary so that he may fully report your meetings as well as impart scientific information to your local people through your local paper. Assist your secretary in securing better meeting attendance by reminding your fellow-members of the next meeting and load some of them in your car and take them to the meeting. These are just a few things that you can do and if you will do them your secretary will be very appreciative and work the harder. Inspire him, reveal interest to him and aid him, for then you will witness a real live functioning Society in your County and one which will be of inestimable value to you.

We plead for a large staff of assistants for your County Secretary. But, first read the report of their last Conference.

ANNUAL MEETING — MUSKEGON — SEPT. 8, 9 AND 10

The first thing that we want to state and impress is that our coming annual meeting in Muskegon on September 8, 9 and 10 is going to be the biggest medical meeting ever held in Michigan. Biggest in number of attendance. Biggest in the array of speakers. Biggest in educational value. Biggest in interesting events. Biggest in fostering professional fellowship and society achievements.

We admit that we have consumed a number of "Biggest," but that is the only way we can give expression as to what is really coming off. We are not indulging in "propaganda," "bunk," "dreams," "optimism" or over enthusiasm. We are handing out truths and facts, and we are going to substantiate them. Read on and find out why the Muskegon meeting is going to be our biggest meeting and why you should not miss it.

There is going to be a radical change in our program. *Section Meetings are going to be done away with.* The Scientific Committee has decided to prepare a program that will combine the meetings of all the sections.

The new State Armory in Muskegon, capable of seating 2,500 people, will be our meeting place. This central auditorium will be arranged in the form of an amphitheatre with a central platform, where all in attendance will be comfortably seated and can see and hear each speaker. There will be no reading of papers. In place of papers there will be thirty carefully selected clinical teachers and fluent speakers, five of whom are nominated by each section, who will have thirty minutes each in which to present to you the subject that has been assigned to them, and who will present their subject in clinical form with emphasis on practical application. The sessions will commence at 9:30 in the morning and run till noon and in the afternoon they will be conducted from 1:15 to 4 o'clock. There will be a new speaker and subject every half hour and each speaker will have a message of instruction and aid to every listener. These subjects and speakers will be announced in our next issue.

On Wednesday evening will occur our general meeting, at which time President Clancy will deliver his annual address. This will be followed by an address by an internationally known man. This evening meeting will be held in an auditorium that is central and which will permit inviting of part of the people of Muskegon.

The House of Delegates will hold their meetings in the convention hall in the Occidental hotel. The Section on Eye, Ear, Nose and Throat, Pediatrics and Public Health are planning additional meetings commencing at 4 p. m. Wednesday and ending with a 6 o'clock Section dinner.

The profession of Muskegon are planning and will provide suitable entertainment. They purpose revealing some real hospitality.

The Occidental hotel will be headquarters and has accommodations that are modern for 600 guests. This hotel has been materially enlarged during the last year. The Muskegon hotel will accommodate 150 guests. Accommodations will also be available in the club dormitories of Muskegon and also in private homes. The question has been raised as to whether Muskegon could care for a large number of visitors. We have verified the assurance that accommodations up to 1,500 can be secured, for if need be, a lake passenger boat will be leased. Do not let the fear of inability to find accommodations deter you from attending. Muskegon will take care of you satisfactorily. We do urge, however, that you write now, early, for your reservations.

Muskegon is approachable by cement roads from all directions. There are two all-cement roads from Grand Rapids to Muskegon, and the West Michigan Pike is cement from the Indiana line and from Traverse City to Muskegon. Ample garage and parking facilities will be provided.

That is all we are going to say at this time. Watch for the program in future issues. Write for your reservations and mark the dates on your calendar, for you cannot afford to miss the biggest meeting of our State Society that is going to be pulled off in Muskegon on September 8th, 9th and 10th.

LEGISLATION

The legislature adjourned on May 2nd. This recent session closed without the enactment of any of the bills that were introduced for the purpose of giving recognition or special privileges to any of the several cults. The bill introduced to amend our present medical practice act so as to give exemption to the cults also failed to pass. These three bills never came to a hearing and died in the committee.

These results did not ensue because of inactivity of our Legislative Committee. There were two factors that influenced the result. First, your Legislative Committee and officers met early and planned a definite course of procedure. This plan was adhered to in strictest detail and the activities that were engaged in were carried out in a quiet and effective manner. Secondly, your Legislative Committee and officers were in constant and close touch with the Lansing situation. We were familiar with what was going on and kept contact with each new move or effort that was being made. There were times when quick action was imperative, but that action was characterized by a quiet, dignified intensity. This method won the respect of the members of the Senate and the House and favorable comments were often heard in regard to the manner in which we were seeking to establish our attitude and wishes. The lobbyists for the cults created just the opposite sentiment, and while they were aided and assisted by the Lieutenant-Governor, George Welsh, the members of the legislature expressed disapproval of their methods.

It is difficult to accord individual credit. There were a considerable number of our members who rendered splendid service and who are entitled to just recognition for the time devoted and the services that they contributed. Without their assistance the task would have been far more difficult. Our County Society officers and members also were of material assistance in the personal work they did with their local representatives and for the petitions and telegrams that they caused to be sent. It is impossible to record names or individual acts and do full justice.

From all the assistance received from groups and individuals we would be remiss did we not mention the names of Doctors Greene, Bohn and Upjohn. These fellow practitioners served in the legislature and were alert every minute. They exhibited their tact and influence. They interviewed members of both Senate and House. They furnished the committee with information that was convincing. They contributed valued suggestions as to proceedings. They were a power and a force that accomplished effective results. The people of Michigan owe them a debt of gratitude for the effort they made to safeguard the health and lives of the public. The profession is indebted to them for the service that they contributed. They served as ideal legislators and gave splendid account of themselves. They were true to their oaths of office. We are eager and glad to thus openly recognize their service and to thank them most sincerely.

Individual credit must also be given to Dr. Davy of Lansing, a member of our Legislative Committee, who assumed the burden of our committee's work. Dr. Davy was ever alert and indefatigable. He was in constant touch with the situation. He gave much of his time and sacrificed himself and his work upon numerous occasions. No one will ever know just how much he really did, for it is impossible to appraise as fully as he deserves the work that he accomplished. Our Society is under obligation to him and this recognition is tendered with our sincere thanks. We recognize that it is a wholly inadequate recompense, nevertheless, we assure Dr. Davy that he has rendered a distinct and valued service to the people of Michigan and to the profession.

So once again a Legislative Session has passed. The cults and quacks, who prey upon the public and seek to secure special privileges and immunity while they endeavor to reap blood-tainted shekels by trifling with human health and happiness, failed to obtain legislative recognition to protect them in their unscientific practices. Shall we be compelled two years hence to again engage in another legislative campaign? The answer rests with our members.

A definite course lies before us. If we pursue that course we are inclined to the opinion that Michigan will never grant recognition to cults and charlatans. That plan of work subdivides itself into three major divisions. First: It must be our purpose to induce and secure a number of our members to become candidates for the Legislature. We should have not less than three, and preferably six or ten doctors as members of the Senate and the House.

From different parts of the state, doctors must be induced and urged as well as be made to see that they have a duty to perform to represent the people in our legislative bodies. Definite arrangements should be made to select such representatives. Second: As individuals and as County Societies, greater concern must be evidenced in candidates coming up for election. They should be interviewed and enlightened as to the facts and problems that enter into health conservation and legislation and the man who is willing to trade human lives for political spoils should be defeated by effective pre-election measures. Third: As a State Society, working through our County Societies, it is our duty to cause the next two years to witness our imparting to the public information and facts regarding health, scientific modern medicine and the manner in which individuals can conserve their physical resources. Such a dignified activity will bring about a medical understanding on the part of the public so that pseudo-scientists and cult propagandists will become fully exposed.

We firmly believe that this is the course that should be pursued. We sincerely hope that such activity will be forthcoming. We are extremely urgent that the opportunity be not neglected. We perceive this to be one of the greatest duties that rests upon our profession. It should not be necessary that our society should be compelled every year to engage in a legislative campaign to reveal the evils and base motives of coteries seeking legislative recognition. Our members are urged to take up such an educational campaign during the next two years.

MUSKEGON HOTELS

Occidental Hotel, Western avenue at Third street. Accommodations for 650 people. Prices without bath, $2.00 to $3.50. With bath, $2.50 to $7.00. Dining room and cafeteria service extra.

Hotel Muskegon, Western, across from station. Accommodations for 125 people. Prices without bath, $1.50 to $2.00. With bath, $2.00 to $2.50. Dining room extra.

Country Club—(six double rooms)

At the Muskegon Country Club a limited number of doctors can be cared for in the club dormatory. The rooms are all double. There is a wonderful eighteen-hole course at the club, and arrangements can be made for its use during the meeting.

The club is situated about five miles from the Occidental, with excellent street car accommodations. Arrange for rooms in Country Club through Wm. M. LeFevre, M. D., Muskegon, Mich., Chairman of Hotel Committee.

THE MUSKEGON POST-GRADUATE CONFERENCE

The Ninth Post-Graduate Conference was held at Muskegon May 14, 1925. Forty-five physicians were present. They represented the Oceana, the Newaygo, the Mecosta and the Muskegon County Medical Societies which compose the eleventh Councilor District and the Ottawa County Society of the Fifth Councilor District.

The important features of the Conference were a joint luncheon with the Rotary Club of Muskegon at noon, a dinner at night, the scientific program during the forenoon and afternoon and a meeting for the public arranged by the Parent-Teachers' Association of the city. At the luncheon an excellent musical program was given by local talent of Muskegon and W. D. Henderson, Ph. D., Director of Extension of the University of Michigan, discussed the subject, "Science Steps Out, Education Steps In." Dr. Henderson pointed to the fact that the body was a physical machine and what he was interested in was to have the body in the highest state of health possible for in such a condition it could fulfill the function intended for each body.

At the dinner in the evening several short talks were given. Doctor Frank W. Garber, one of the oldest practitioners of Muskegon, reviewed his experiences and stated, "That it had been very difficult to continue the practice and keep up to date. He appreciated the Medical Society for it was a means of getting information. The Post-Graduate Conference was one of the best means that had been tried to bring information to the busy practitioner. All physicians should take advantage of such conferences."

Dr. P. H. Wilson in his remarks stated, "that medical meetings stimulated a desire to do better work. The Post-Graduate Conference was one of the best means of bringing about such a result. The speakers verified their own knowledge and brought new contributions so that every physician gained something that benefited him in his profession."

Dr. W. T. Dodge, former president of the Michigan State Medical Society said, "This has been an excellent conference. I cannot understand why every physician did not come. No one can afford to miss such scientific meetings as these." Doctor F. C. Warnshuis for the Michigan State Society said, "That it was the duty of every physician to help advance his own science, but more than that it was also the duty of each to teach and inform the public as to what scientific medicine meant and what was its actual relation to the health of the public."

Doctor W. D. Henderson in his remarks to the doctors present, talked on the subject, "What Do I Think of the Doctor." "To spread the gospel of good health is the duty and privilege of every physician. Everybody, every boy or girl has a right to have a strong, healthy body in this day of science and it is part of the job of each physician to see that understanding is brought about relative to the workings of the physical body. The Joint Committee of Health is doing excellent work in giving information. Thirty-three per cent more meetings have been held this year than last. More physicians are needed in this work to supply the demand. We need men from here to go into nearby communities to give information."

In the evening at the public meeting made up largely of members of Parent-Teachers' Associations, Dr. Henderson again said, "that every boy or girl has a right to a strong body in this day of science and in addition that all organizations and civic bodies have, as a part of their duty, the accomplishment of this fact."

The scientific program attended by the forty doctors was as follows:

10:15 a. m.—Remarks. George LeFevre, M. D., Chairman; Harvey George Smith, Executive Secretary.

10:30 a. m.—"Essential Fundamentals of Physical Examinations," Elmer L. Eggleston, M. D., Battle Creek.

11:00 a. m.—"Modern Obstetrics," H. S. Collisi, M. D., Grand Rapids.

11:30 a. m.—"Interpretation of Physical Examinations of the Heart," M. A. Mortenson, M. D., Battle Creek.

12:15 p. m.—Luncheon.

1:30 p. m.—"Fundamentals of Neurological Examinations," C. D. Camp, M. D., Ann Arbor.

2:00 p. m.—"Diabetes—Coma—Insulin," Wm. LeFevre, M. D., Muskegon.

2:30 p. m.—"Mentality Tests," C. D. Camp, M. D., Ann Arbor.

3:15 p. m.—"Diagnosis of Gastric and Duodenal Ulcer," Elmer L. Eggleston, M. D., Battle Creek.

4:00 p. m.—"Hypertension," M. A. Mortenson, M. D., Battle Creek.

4:30 p. m.—"Fractures," F. C. Warnshuis, M. D., Grand Rapids.

Intermission.

6:00 p. m.—Dinner—Two short talks.

PUBLIC MEETING

8:00 p. m.—"Science Steps Out,"W. B. Henderson, Ph. D. Ann Arbor.

The ninth Post-Graduate Conference has brought more proof to the fact that the Post-Graduate Conferences that are conducted by the State Society in co-operation with Councilor Districts and County Societies are what the members of these Societies desire.

On request of the superintendent of schools, Dr. Henderson talked to seven hundred boys and girls of the high school. His theme was, "The Will to Do."

MEDICAL SOCIETY BENEFITS

The benefits of organizational activity in all fields of human endeavor have come to be regarded as accepted facts and the observant world seldom takes issue with the pronouncement. Probably, the application of the term organization has grown trite because of the frequency of its use in the every day affairs of civilization.

A glance at the history made—and in the making—in the spheres of finance, commerce and industry offer indubitable proof of the values inherent in intelligent organization. And if intelligence is the measure by which success may be computed, it would seem that the medical profession ought to have been among the first to adopt and develop organizational principles, since its members may lay claim to this attribute, and besides the need for co-operation has ever been apparent.

But, the medical mind appears to have been so engrossed in the problems of suffering humanity, that matters apart from service to the sick have been excluded from consideration, particularly any thought of self interest.

Hence, at the present even, when scientific medicine in all that the term implies has become an established fact, the profession at large is giving scant attention to the protection of its honorable record, by telling the world what it has done and is doing in behalf of humanity.

Medical Societies have been known for a long period of time, and they have splendidly served in the maintenance of a high plane of ethical observance, but their exclusive attitude held so dear by members, has not permitted the public approach necessary to a full understanding of their ideals and purposes.

Again, the fetish of mysticism attaching to earlier medicine in the lay mind, has clung tenaciously through the ages down to the advent of rational and scientific practice of the art.

It is only a recent event in history, that something notable has been done in the way of carrying to the public mind definite knowledge of things medical, such as the known causes of disease, prevention and treatment based on scientific studies, with resultant application of facts. Splendid work is being carried forward at this time for the purpose of bringing home forcefully to the public mind, the knowledge that the physician of today possesses a scientific education, which enables him to successfully care for human ills.

Besides, the efforts of the Joint Committee on Public Health Education, there has been instituted by the State Medical Society a program of Medical Conferences throughout the state, in order that Post-Graduate opportunities may be easily had and within the reach of all physicians interested in progressive medicine.

Having briefly outlined some of the things in process of accomplishment for the benefit of the people and the profession, let us consider the best means of securing these most desirable results.

Obviously, the physicians as a whole must join enthusiasticaly in this project, with the fixed purpose in mind of carrying it through to a successful issue. And the best proof of interest in the movement for the betterment of medical conditions in Michigan will be found in having every eligible physician enrolled as a member of his County Medical Society. It would seem that this can be brought about if the present membership will cheerfully aid the State Medical Society in securing a hundred per cent enrollment.

Michigan has something like five thousand physicians and with co-operation among them there can be no doubt of their ability to dispose of, for all time, any adverse legislation. The complete organization of the physicians, molded into a group having faith in harmony and co-operation, will assure protection to the people of the state against the dangers to Public Health, so much in evidence at the present time.

A divided medical sentiment leads to the impairment of the work of the profession and brings in its wake a potential loss to the commonwealth.

Primarily in this situation, the greater loss is borne by the unsuspecting public, while the profession follows with a narrowed prestige in the good will and confidence of their clientele.

Already we have made a good beginning; by increasing our efforts in behalf of Public Health Support and Service; by active participation in Public Health Education; by establishing and carrying on County Medical Conferences; by encouraging and aiding County Society programs and meetings; by enlarging The Journal and putting an Executive Secretary in the filed, and by inaugurating this cam-

pain for an increased membership of the State Medical Society.

Let every physician, not now a member, join the ranks, every member become active in his support of the program briefly outlined, and the progress and betterment of medicine in Michigan will bring saitsfaction to you, in the consciousness of having performed a worthy duty.

May I bespeak for your officers, both State and County, a renewal of confidence and loyalty toward the medical profession, the legatees of that ancient and learned body, in which our greatest pride must rest.

C. C. Clancy

FRACTURES

Fractures are the same today as they were ten, twenty or thirty years ago. They are the same "break of a bone," and present the same four physical diagnostic signs. Progressiveness of life has produced an increasing number of certain types of fractures, as witnessed by the "Auto Colles Fracture" and an increased number of skull fractures sustained on our busy highways. Another predominating factor is the seemingly small amount of outward force required to produce a fracture. On numerous occasions it has been noted that a fracture existed when external evidence and source of force would seemingly exclude the presence of a fracture.

Possibly because fractures are more or less common is the reason that we at times assume an indifferent and sometimes a careless attitude toward these injuries. We fail to make a careful examination, we neglect the use of the X-ray, or, we are careless in securing and maintaining reduction. This creates bad results, deformities and suits for damages loom up with average regularity.

Consequently, we are constrained to once more impart the following pertinent points:

1. In every injury, make a careful examination.
2. Use the X-ray and corroborate the presence or absence of a fracture.
3. If a fracture exists, obtain complete reduction.
4. A general anesthetic is required to secure proper reduction.
5. Immobilize with proper splints.
6. Examine frequently to assure continued reduction.
7. Institute early passive motion and muscle massage to prevent ankylosis and contractural deformities.
8. See the person frequently and fortify yourself with consultants in the more serious fractures.
9. Take and explain the injury and attending difficulties to your patient.
10. Have several X-rays made during course of treatment and on discharge for your record and protection.

Your services, characterized by attention to these details, will accomplish better end results.

SOCIETY REPORTS

The reports of the County Secretaries of twelve Societies recorded in the May number of The Journal show the extensive field of the Societies and how each one is meeting the problems in its own county. The dominant activity of each Society has been scientific. Local speakers and outside speakers have been on the programs. Physician members who have been to the Mayo Clinic for study and those who have traveled and studied in Europe and the Canal Zone recorded their activities and their study in the meetings of the societies. A visiting physician from China told of his interesting experiences in that country. He described the methods of the Chinese doctor in treating his patient. His remarks indicated that he did most of his healing by being absent from the case. In one county report a meteorologist discussed the relation of temperature to patients and more especially in operating rooms. While we have thought of temperature being a weather factor directly affecting the farmer, the pleasure seeker, or automobile and baseball fan, attention is here directed to a condition that may directly affect the recovery of the patient.

Socially, we find that one society in co-operation with the dental men and the pharmacists gave a dance which was a success. Another Society discussed plans for extending the use of toxin-antitoxin in the prevention of diphtheria. Here we have real community activity. In the notes of another report we find one Society giving over a whole luncheon meeting to the discussion of publicity for the science of medicine. Another Society shows how it has been alert to critical legislative problems and at the same time took measures to safeguard the public from serious conditions. Several reports show that the problem of dues has been one of considerable importance. We hope that the Secretary has not been abused because he has been trying to fulfill his duties. In asking or reminding members to pay their dues the Secretary is only helping the physician, keeping him from being delinquent, thus loosing his medico-legal protection, his Journal and all privileges of organized medicine in Michigan and the United States.

The County Society reports are the personal records of Society activities. They bring in-

formation to every Secretary and to every member of what is being done by the organized Societies throughout the state. Every one should read these records for the purpose of securing ideas and methods for making his own Society more useful to himself, his fellowman and to the science of medicine.

The Journal is pleased to receive reports from a large number of Societies. There are more pages available for those who have been silent. Your records are always welcome in the columns of The Journal and your neighbor Society wants to know what you are accomplishing. H. G. S.

OPIUM

According to the estimate announced by the League of Nations, the world production of opium is 3,500 tons. The world requirements for medical and scientific purposes was estimated at 250 tons of opium. To restrict the over production of opium and thus to combat the opium habit that is so palpable, a conference was called in Geneva in November, 1912. Ministers and representatives from 48 nations and states convened. The conference was in session until the holidays without reaching any agreement or determining policies. The second conference convened in the same place on November 11, 1924 and adjourned February 19th, 1925. The American delegation withdrew from the conference on February 6th, 1925.

Over seventy sessions were held and each nation represented presented their national attitude and desires. America, through its delegates, advanced the following proposals:

1. Limitation of raw opium and cocoa leaf production to medical and scientific needs.

2. Complete suppression of the traffic in smoking opium within ten years by means of a ten per cent reduction of imports each year for ten years.

3. The creation of a permanent control board, with which each signatory to the Convention agrees to deposit in advance estimates of all narcotics required during the year. The proposed board was invested with the authority to question estimates, and the power to recommend prohibition of further export.

4. Universal adoption of an import certificate or license certificate to control the traffic in raw opium and manufactured drugs.

This American proposal received much attention and discussion. Some of the principles were partly acceptable while others and their attending conditions were objected to by a number of the delegates. Objection was particularly expressed by India, Persia, Turkey and Jugo-Slavia. These objections were not acceptable to the American delegation.

After the withdrawal of the American delegation the conference continued until February 19th and the agreements arrived at during the discussions were drawn up in the form of a convention, a protocol and a final act.

The convention contains thirty-nine articles, strengthens the provisions of The Hague Convention of 1912 by a number of measures for effective restriction of the production or manufacture of narcotics and establishing a closer control and supervision of international trade.

The protocol deals with the restriction of the growing poppy.

The final act deals with acceptance by each government and with suggestions as to future conferences.

The foregoing summarizes all too briefly, the results of the opium conference. Those desiring to learn the full details are referred to the official minutes. We have advanced this incomplete summarization for the sole purpose of pointing out several pending eventualities that are rapidly confronting us as a nation, as physicians and as a profession.

The first is that it may be confidently expected that within a very few years there will be enacted in this country a very drastic law that will deal with the importation and use of opium in all its forms. These restrictions will affect the profession of medicine. Right now there exists one recently formed lay organization that is gathering information and formulating statistics so as to present a bill upon the subject to the next session of congress. The profession of the country, thus far, has not been consulted and its national organization is not invited to participate in the study and the formulation of concrete recommendations. Unless we are alert, we will wake up some morning and find we are confronted by a new law that will direct us as to when, where and how we may prescribe or administer opium.

Another eventuality that is becoming palpable is the fact that the opium habit will not be controlled as long as certain nations disregard the moral problem and cling solely to the commercial revenue that is derived by these nations from the raising and exporting of opium. India has raised and

chewed opium for over two centuries; this national industry cannot be curtailed in a decade. In Persia and Turkey peasants are depending for their livelihood on the income they obtain from their opium crops. It is more than a gigantic task to induce and train these peasants to raise other crops. There is thus involved the diplomatic, tariff, export regulations, agricultural and revenue features that impinge upon the national affairs of some more than thirty-five countries and states.

The final and most alarming eventuality is the one whereby our government may on its own initiative and by the instigation of certain lay organizations and welfare workers, enact a law that is prohibitory in type and which will seek to exclude all but a limited annual amount of imported opium. If that occurs then our government will be confronted with an enforcement activity against smugglers that will exceed our present corps of liquor enforcement officials who thus far have been wholly unable to cope with the liquor problem and rum-runners. One refrains from commenting upon such a situation.

What then is there to be done? We concede that the curtailment of opium production and of the opium habit is a pressing social and economic problem that presses for solution. However, have we gone about it in the right way to achieve the solution? We believe not. We are not quite so fatuous as to believe that we can outline and advance the proper method by means of which the problem should be handled. We do, however, purpose to urge that the Medical Profession of the country, through its county, state and national organizations should become deeply concerned. We believe that a representative commission composed of experts and organizational representatives should be created and directed to survey the entire situation and formulate definite and applicable procedures. Having done so, this commission should invade our national law making bodies and mould proper legislation.

We are hopeful that during the pending meeting of the American Medical Association such a foreward step will be taken by that national body. If that is done and such a commission is created, then every state medical organization should lend its material and moral support to expedite and aid the work that is to be undertaken. We are of the opinion that such is the only course to pursue if the opium problem and opium addiction is to be solved and curtailed.

Editorial Comments

We anticiapte that inasmuch as our legislature declined to give recognition to the cults, the question will be asked, "Why permit them to continue to violate a state law which prescribes the requirements that an individual must possess, who holds him or herself forth as capable of treating human ailments and disease." Many of our members are right in demanding that these violators of the medical practice act be dealt with according to the provisions of that law. Whose duty is it to institute prosecutions? There is but one answer and that is—the County Prosecuting Attorney. The State Medical Society, The State Board of Registration in Medicine and the State Board of Health cannot resolve themselves into prosecuting officers. The Board of Registration and the Board of Health can and does assume the duty of prefering charges in certain instances. We partly feel that the Board of Registration might well and properly do so in more instances than it has in the past. The State Medical Society is not and cannot become, and what is more, should not become a prosecuting organization. The enforcement of this law rests with the County Prosecuting Attorney. We are aware that these County Prosecutors have been lax in the past and most likely will continue to be so in the future unless some influence and pressure be brought to bear upon them. Who shall exert this influence and pressure? Individually you cannot do it as a doctor. Neither can the County Medical Society assume that role. However, as citizens and as independent groups of citizens you can interview and enlighten other fellow citizens and with that local influence brought to your local Prosecuting Attorney we are inclined to believe that he will recognize the wisdom of enforcing this law with the same zest that he manifests towards those who violate other state laws. Why should a member of a cult, or a faker, obtain immunity any more than does the auto-speeder, bootlegger, gambler, confidence man or forger? None at all. The cultite violates the rights and peace of citizens far more flagrantly than do these other law transgressors. He is entitled to no more immunity than is the burglar or murderer. His acts will continue to be condoned until you and your fellow-citizens assert yourself and cause your Prosecuting Attorney to recognize his duty and institute proceedings. Do not pass the buck. Start in now to enlighten your fellow neighbors, educate your prosecutor and tell him that you are demanding that he cease overlooking these law violations. It is your job. Supposing that you start getting busy.

Many of our members are planning extended vacations. All of them will have certain experiences and will attain their ideals as to what should comprise a vacation. We solicit your writing and telling our readers and your fellow members just what these ideals and experiences were. Such communications will not only be interesting, but they will also convey suggestions to others that will be helpful in formulating vacation plans. So please send in your individual contributions. Contribute them for each other's happiness and profit.

Wayne, Jackson, Genesee, Houghton and a few other county societies have adopted an automobile emblem to distinguish the doctor's car on our streets and highways. Certain reasonable privileges are accorded in traffic regulations. The query is pertinent—Why not adopt a state emblem that will have a state-wide recognition? We are for it.

The subject was discussed at the Secretaries Conference. A referendum was advised. What is your opinion? Would you like such an emblem? The American Medical Association has designed a new national emblem. If that emblem could be secured with an added Michigan identification would you be interested? If a sufficient number of members manifest their interest and supply us with their suggestions we will make it our business to bring out such a Michigan emblem. So please tell us what you want and how you want it.

During the present month a list of all our members who have paid their 1925 dues will be sent to respective County Secretaries for verification. After the County Secretary has checked over the list and returned it, we purpose rechecking the addresses on our mailing list. This will assure that every member who is in good standing will receive a copy of The Journal. Our greatest difficulty in keeping our mailing list up to date is due to the many changes in address that occur and of which we receive no notification. County Secretaries are requested to notify us when any member claims that he is not receiving The Journal.

Again do we request the sending in of case reports. In this issue we are publishing two contributed reports. We desire more. Be assured that these case reports are desired for our Case Report Department. Well gotten up Case Reports are not only interesting, but instructive. May we have more of them and will you not help us to secure them?

County Secretaries will secure some valuable suggestions from reading the full Conference report contained in this issue. These suggestions will aid you in bringing about renewed interest in your county. We suggest that you apply them and secure the assistance of a few of your fellow-members in making the application. Get in touch with your neighboring County Secretaries and trade speakers with them. A joint-meeting or picnic outing would not be amiss. Wonderful opportunities exist for increasing the scope and interest in your local society. All that is required is for you to inspire the initiative and institute the activity. That is the chief duty lying before you and one which you should recognize. Blame for a dead society will always rest at your door and who wants such a reputation? Ask us for any help that we can give for we are eager to be of the greatest possible assistance.

The Miiltary Surgeon is the official publication of the Army Medical Department and of the Reserve Corps. It is a valuable magazine of interest and scientific worth. The editorial management is very desirous of securing articles from ex-officers setting forth professional and personal experiences that were encountered while in the service. Personal reminiscences and exceptional incidents are desired. We pass on the request with the hope that some of our members may be moved to contribute articles dealing with these subjects. The manuscript may be sent to us and we will see that it is forwarded to the editor or you may address the Editor, Military Surgeon, Washington, D. C. A goodly number of Michigan men should be listed as contributors.

There is going to be another election. At the proper time we will give warning of the aspirations of Lieut. Governor Welsh. If the Lieutenant Governor had had his way he would have sacrificed the health and lives of the people of Michigan and given the "chiros" every right to toy with human life. When politics to gain selfish ends barters with lives of citizens it is time to call a halt. That's what we purpose to do and our 3,300 members, working along definite lines, can create the force that will erect the barrier.

In making your plans for your summer and vacation time we recommend that you bear in mind that one of your outings will be three days spent in Muskegon in attending our annual meeting. The dates are September 8, 9 and 10. Thirty capable and fluent clinicians will address combined meetings of all the sections. It will be a post-graduate lecture course that you can ill afford to miss. Reserve these dates now on your summer program. Write to the hotels for your room reservation and do not neglect doing so early. See the editorial page for further announcement and watch succeeding issues for the detailed program.

Plans are being perfected for conducting four post-graduate clinical conferences in four different localities in the Upper Peninsula the month of July. To our members in the Upper Peninsula we desire to convey the message that when they are in receipt of the program and date for their respective territory that they make it a point to be in attendance. Wherever these conferences have been held the opinion has been expressed that they were the most instructive and helpful meetings ever put on. Special features are being worked out for these four Upper Peninsula Conferences.

Again we call attention to Hygeia. It is a magazine that is doing a world of good in imparting truths as to scientific medicine and acquainting the public with the fads and fallacies of those who sponsor varieties of cults and pseudo-scientific practices. Hygeia is carrying a message of truth to the people. Hygeia is efficiently serving to expose quackery. Hygeia merits the support of every physician; it should be on the reception room table of every doctor. Hygeia is teaching the people rules and methods of right living, the prevention of disease and the conserving of physical health. We urge once more that every doctor lend his assistance in increasing the circulation of Hygeia and cause it to enter the homes of your patient's family.

Here and there you will find some men who hold themselves out as doctors and who by some reason possess a license to practice who resort to actual deception and fraud. It is not base ignorance, it is pure unadulterated fakery. Just recently we heard of one who gave insulin to his diabetic patients every Saturday. Another was reported as giving diabetics three injections of insulin and then assuring them that the new treatment had cured them of their diabetes. In neither instance was there any attempt to secure evidence that is obtainable from blood chemistry and which is absolutely necessary in order that insulin may be rightfully administered. There was no effort made to prescribe a balanced diet. Insulin was given in course or at week intervals and fees were being collected. It is difficult to give forceful expression of condemnation to such practices. We cannot find words strong enough to condemn such individuals who dishonor themselves and the medical profession. It is difficult to perceive the mentality or visualize the morals of such cusses. Our recommendation is that the County Society call such men on the carpet, force the discontinuances of such practices and if that is not effectual to then take steps to cite them before the State Board for the

revocation of their licenses on the grounds of quackery and fraud. It is about time that we clean house and get rid of some of these skalawags. There are others probably employing other means to deceive the people. They play up some machine, light, serum or drug. They are as bad as these insulin fakers. We are for a movement that will expose them also.

Dr. Andrew P. Biddle, Detroit, was elected President of the American Dermatological Association, at the annual meeting held in Washington on May 5th. This is the highest honor that can be conferred on an American dermatologist. Especially so this year, when the association celebrates its 50th anniversary. We are distinctly pleased that this honor should come to a Michigan man, who has done so much for our state profession and who has always stood for the higher, better things in professional and civic life. We tender our congratulations to Dr. Biddle. We congratulate the Dermatological Association upon having selected so capable and deserving member as its President.

We have seen in the past twenty-five years horse cars and carriages give way to motor driven vehicles, old landmarks have been torn down and in their places have been erected massive structures of steel and stone. The skyline of the city now visualizes a change that seems magical and inspiring, aeroplanes and dirigibles are no longer a novelty, and the radio registers the most recent, but probably the sharpest, contrast of the present day with the past.

The contrast in the procedures and practice of medical science during this same period shows as startling and radical a change. A work on surgery that is ten years old is practically useless, as the strides of progress in that science have in so short a time carired the art so far. In diagnosis the trained eye, ear and touch of the skilled physician are supplemented and aided by the X-ray, the laboratory where delicate tests are determined, and improved apparatus that gives precision and accuracy in the measurement of the bodily functions. The psychologist analyzes the changes in abnormal mental condition by his comprehension of the subtle influences that disturb mental balance and manifest themselves in abnormal physical and mental reactions. The changes about us that so readily register upon our minds are no more startling than those which the science of medicine have undergone in these recent years.

The passage of workmen's compensation laws throughout the country has brought the medical profession into close contact with the industrial world and has produced changes in the practice of industrial medicine that are short of revolutionary. The tendency to mesh the medical profession into the industrial machine and make it a cog in the mechanism, gained sufficient momentum a few years ago to make the passage of compulsory health insurance laws a serious menace to the profession's independence. This effort, however, was but a symptom which sounded the warning of how the industrial world contemplated dealing with the medical profession and of the design to lock-step it in obedience to purely materialistic and industrial needs. The profession was saved from this impending doom not so much by the loud protest of its individuals, as by the power of its organized intelligence. New importance was given by the compulsory health insurance campaign to the necessity and value of organization in medicine, in order that the profession might take its proper place in the civilization of this present industrial age and not become a part of the army of white-collared wage-earners. That battle has been won, but have the gains of the victory been sufficiently consolidated for a further advance by the profession?

Possession of intelligence alone is not sufficient to cope with the present day problems of this industrial age—for the professors of the schools and colleges throughout the country possess a learning and intelligence quite comparable with that had by any of the learned professions, but their economic status has been one of pity. Their position in the life of this material age is not adequately registered and organized, because such profession does not adequately function in the organization of its intelligence and the expression of its congregated judgment and power.

Numerically the medical profession are practically negligible. Their total voting strength throughout the United States is less than that of a few blocks of tenement dwellers in the City of New York. The structure of ignorance, of blind political partisanship, of selfish greed, will give way to the power of organized intelligence as readily as the giant steel structure can be made to crumble and fall by the application of the acetylene torch.

The industrial world depends upon the physician to keep the workers healthy and to treat scientifically industrial injuries and diseases. Industry must rely upon the maintenance of a high degree of professional integrity, learning, skill and morale in the medical profession to maintain a high standard of industrial production.

The great life insurance companies that have outstanding today fifty-four billion dollars in policies of life insurance have based the writing of every dollar of their promise to pay those billions of dollars upon the opinion, the skill and the integrity of medical men. The millions of dollars paid annually in health and accident insurance are paid only after a medical man has made his examination and given his opinion. The workmen's compensation for industrial accidents, unknown twenty-five years ago, represents today an investment of millions of dollars and the payment of one hundred and seventy-five million dollars in premiums a year. Of these premiums twenty-five million dollars a year are spent for medical service. The whole purpose of this law would be defeated and its operation ineffective were it not for the contribution made by the medical man in the performance of medical services under its provisions. The banking interests of the country are closely allied with these various industrial and insurance corporations and depend largely for their money upon the millions of dollars that flow into their treasuries. The entire economic system, therefore, has a direct dependence upon the maintenance of a high degree of learning, skill and integrity of the medical profession.

The laws that destroy the profession's morale, by permitting the influx of hordes of ignorant and unqualified to practice a branch of the healing art and exploit a theory of treatment contrary to the science upon which disease today is treated, and laws that destroy the initiative of the medical man in the pursuit of science and in the acquiring of economic independence, strike not only at the medical profession, but through it at the great industrial and business enterprises of this present age.

These are the changes that the last quarter of a century have wrought—quite as amazing as any that we so readily visualize and comprehend about us. Their lesson, it seems, is to emphasize the imperative necessity of firm organization of med-

ical men so that organized intelligence can combat the destructive effects of the industrial tide and guide it into channels of usefulness to mankind and of progress for the race. In this work in the State of New York the Medical Society of the State of New York and its constituent county societies should have the support, not of passive acquiescence, but of active, militant aggressiveness of every medical man of the state, and its leaders should be encouraged and supported in the carrying out of its great mission.—Walter Whiteside in New York State Medical Journal.

The Wayne County Medical Society has brought into existence a Clinical Bulletin that is published daily and imparts the clinical work for the day and the medical meetings that are being held in Detroit. This Bulletin will thus serve to enlighten every doctor in Wayne County as well as the visiting doctors as to where and at what time Detroit's Medical Clinics are being conducted. It will enable the visitor to plan a profitable program for each day. This step in advance again characterizes the progressiveness of the Wayne County Medical Society. The Bulletin will stimulate interest and will induce men to go to Detroit for clinical study and clinical experience. We recommend that when you are in Detroit that you secure a copy of this Bulletin before you outline your day's schedule.

For hotel reservations at Muskegon write to Dr. Wm. LeFevre, Chairman of the Local Committee on Hotels. The doctor will endeavor to meet your desires and supply you with satisfactory accommodations. We suggest that you make early reservations in order that your requests may be fully complied with.

We note that the Prosecuting Attorney of Wayne County has written letters to some sixty-five chiropractors warning them that they must comply with the state law governing the practice of medicine or be subject to arrest and trial. We commend this activity on the part of this prosecutor, for why should some be permitted to enjoy immunity from the law. We have frequently stated that the enforcement of the law did not rest with the doctors or their organizations. It is a duty that devolves upon the prosecutor of every county. If men are violating the law in your county and procedures are not instituted against them there is only one place where the blame can be placed and that is with your County Prosecuting Attorney. It might be well if some of them were made to wake up to the fact.

The Department on Public Health that is being conducted in each issue of The Journal by the State Commissioner of Health and the members of his staff has added a valuable addition to our publication. The articles in that department are live, pertinent, instructive and reveal what is being accomplished in state health activities. We recommend that they be not carelessly passed over; read them and profit by what they impart.

We wonder why it is that more sons of preachers, lawyers, and business men are enrolling in our medical schools than are sons of physicians. Does Dad know too much of the struggle and time requisite before an individual attains medical independence and competency? Or, is the expense too great for the average physician to expend to defray the cost of medical education for his son. We wonder. On the other hand we also note that not all preachers' sons are studying for the ministry, nor are all lawyers sons taking a law course. Again may not the sons of professional men themselves perceive the demands and tribulations of their Dad's field of labor and of himself determine that he has no liking for Dad's vocation. In the business world we also note that Father's Business is not always being passed on to the son, as was the custom not so many years ago. We find fewer and fewer business firms who are able to claim that their business has been under the management of several generations of the same name. However, we believe that the son should have a very wide latitude to select that trade, activity or profession towards which he has a natural liking and bent. To force a young man into a business or life's task against his wishes is almost equivalent to condemning him to total failure or at the best mediocre success. The thing we are driving at is to urge that the young man, seeking to select his field of work, should be afforded the opportunity of talking to several representative individuals in that field in order that he may know something of the hardships therein entailed and not be mislead by the outward glamor that never is tinted with the inner drama.

The Journal will welcome the submission of original articles or case reviews for publication. We are running low on material for our scientific department and in order to keep up our quota of scientific articles we are requesting their contribution. As we have frequently stated, the scientific value and interest of our state publication must be created by the members of our state organization. This is a field and a work in which all must assume a part of the labor. May we have your assistance?

Out in California a certain citizen gave $325,000 to a city hospital on condition that only accredited regular physicians should be admitted to the staff. Shortly after the hospital was opened certain chiros succeeded in bringing about a vote on a referendum to admit them to the hospital staff. The referendum carried. Immediately the trustees and staff resigned. The generous donor then stepped in and demanded that the city live up to the conditions of his gift or return it to him. He also called attention that these cults were practicing in violation of the state law. We cite this merely to reveal the workings of these cults and how they can fool the ordinary voter. It is another reason why we must continue to press on in the work of educating the public. Voters who know medical facts will not vote "yes" on fool referendums. It is our task to impart this information that is available through our Joint Committee. Are you doing it in your county?

Life insurance companies still continue to solicit alms from the profession in the form of free expert opinion and diagnostic skill. A person applies for a policy. In the application he states he has had certain illnesses and that Dr. Blank attended him. The company writes to Dr. Blank asking full details, diagnosis and prognosis of these illnesses. They seek to thus secure this expert opinion from you in order to base their conclusions and ascertain the safeness of the risk. It is medical services to the company which they need and for which they do not want to pay. They won't pay as long as doctors continue to supply free services. It is our custom to return the request with a notation that our fee is from five to ten dollars, according to the case and when check is received we will supply the information requested. Why should you, doctor, serve a cor-

poration on a charity basis? We recommend that in these instances you demand your just fee. When doctors do this, companies will pay.

An editor of a large daily was once asked how he was able to find material for his editorial pages day after day. He replied: "People forget, and so we feed it to them over and over again." We coincide with the editor's appraisal. Doctors, when it comes to organizational problems and activities, are evidently prize forgetters. Just this past week one man was surprised to find that his membership included medical-legal protection, though we have commented upon it a half a dozen times a year. Another member forgot and thought our annual meeting was in May and that he had missed it. We could go on and mention incident after incident of such forgettings. The only thing apparently is to keep on feeding this information in order that the incidents may be as few as possible.

Among Our Letters

NOTE.—*This department is the open forum of our members. Your communications and discussions are welcomed. Anonymous communications cannot be accepted, though at times names may be omitted by the Editor. Personalities will not be printed and responsibility for opinions is not assumed. We invite your interest in this department. Address: The Editor, Journal, Michigan State Medical Society, Powers Theatre Bldg., Grand Rapids, Mich.*

Editor of The Journal:

You are no doubt fully aware of the important part played by the C. M. T. Camps in the promotion of the present national defense plans. No national defense plan worthy the name can be carried to a successful conclusion without the whole-hearted support of the medical profession and this is of course very true of the C. M. T. C. project. It is essential that all the young men admitted to these camps be physically fit and whether they are or not can be determined only by a physical examination which is performed before they leave home, preferably by their own physicians. It is also important that all candidates for training be immunized to typhoid and paratyphoid fevers and smallpox in order to obviate all danger of epidemics in the camp and to afford protection against these diseases in the event of a national emergency.

It is desirable and indeed necessary that candidates for enrollment be examined and immunized without cost to the applicant. Arrangements have been made whereby this may be done at any Army, Navy or Public Health station where medical officers are on duty, but it is impracticable to reach all applicants through these agencies. It is thought to be the patriotic duty of all medical men to assist in the operation of the C. M. T. Camps during peace as a part of their share in the defense of our country, by physically examining and immunizing without charge such candidates for training—living in their communications—as may apply to them. I am writing to ask if you will be kind enough to bring this matter to the attention of the County Societies of your state and urge each member to co-operate with the Federal Government in this matter insofar as may be consistent with his other activities.

Very truly yours,

M. W. Ireland, The Surgeon General.
U. S. Army.

NOTICE

Editor of The Journal:

The semi-annual examinations of the Michigan State Board of Registration in Medicine will be held as follows:

At the University of Michigan, Medical Department, Ann Arbor, Michigan, beginning June 9th, 8 a. m., and continuing for three days.

At the Detroit College of Medicine and Surgery, 1512 St. Antoine St., Detroit, beginning June 15th, 8 a. m., and continuing for three days.

Complete applications must be in the office of the Secretary, 707 Stroh Building, Detroit, at least two weeks prior to the date of the examination.

Subsequent to January 1st, 1926, internes completing the required rotary service in accredited hospitals shall be required to pass a clinical-practical examination before clinical examiners appointed and authorized by the Board of Registration in Medicine.

Michigan State Board of Registration in Medicine.
Guy L. Connor, Secretary.

State News Notes

COLLECTIONS

Physicians' Bills and Hospital Accounts collected anywhere in Michigan. H. C. VanAken, Lawyer, 309 Post Building, Battle Creek, Michigan. Reference any Bank in Battle Creek.

NURSES' private home, invites convalescents and invalids; best of care, fine location. R. Rs. N. Y. C. and Interurban; best of references given. For particulars write Bessie Bileth, 566 Ely Street, Allegan, Mich.

WANTED: Salaried Appointments for Class A Physicians in all branches of the Medical Profession. Let us put you in touch with the best man for your opening. Our nation-wide connections enable us to give superior service. Aznoe's National Physicians' Exchange, 30 North Michigan, Chicago. Established 1896. Member The Chicago Association of Commerce.

A PRACTICAL course in Standardized Physiotherapy, under auspices of Biophysical Research Dept. of Victor X-Ray Corporation, is now available to physicians. Offers a highly practical knowledge of all the fundamental principles that go to make up the standards of modern scientific physiotherapeutic work. Course requires one week's time. For further information apply to J. F. Wainwright, Registrar, 236 So. Robey St., Chicago, Ill.

COLLECTION SERVICE

AMERICAN MEDICAL BOARD OF ADJUSTERS, First National Bank Bldg., Chicago. Guaranteed *Delinquent* Collection *Service*. Anywhere U. S. A. (Medical Profession Exclusively). Debtors pay you direct. Litigation avoided. Adjustments encouraged. No "Agency" methods. Financially responsible. WRITE!

WANTED—The Michigan Department of Health requires the services of a physician for field service in connection with the prevention and control of

communicable disease; opportunity for epidemiological study, and for advancement; initial salary $3,000 yearly and traveling expenses. Address Deputy Commissioner, Michigan Department of Health, Lansing.

FOR SALE—Excellent practice, with instruments and medicines, residence and office; town of 5,000. Will bear close investigation. Mrs. A. E. Savage, Greenville, Michigan.

FOR SALE—$8,000 unopposed village and country practice on railroad and trunkline highway; good school, church and business center; nearest competition ten miles; inland lake resort region; use automobile all the year; eight room modern house and two car garage in center of town. Price $3,500.—Dr. M. J. Cross, Delton, Mich.

The City Hospital in Jackson is under the control of the City Commission. For some time certain chiropractors of Jackson have been endeavoring to gain admittance to the hospital and pursue their practice on patients in the institution. The subject was widely agitated and much pressure was brought to bear upon the Commission. On May 19th formal action was taken and the Commission denied the use of the hospital to the chiropractors.

Dr. Ray Lyman Wilbur, President Stanford University, California, and Dr. W. A. Evans of Chicago, delivered the dedicatory addresses of Butterworth Hospital, Grand Rapids, on May 20 and 22nd. The hospital was opened for reception of patients on June 1st. The hospital has 270 beds and is the largest in Grand Rapids.

St. Mary's Hospital, Grand Rapids, has commenced the erection of an 80-bed addition to their present modern building.

Dr. Hugh Cabot, Ann Arbor, addressed the Kent County Medical Society on May 15th, at the regular meeting held in the new Butterworth Hospital. The members were the guests of the hospital staff for dinner.

Doctors M. W. Wells, J. T. Hodgins and Ferris N. Smith, Grand Rapids, departed the middle of May for a European trip.

Our Society Business and Activities

HARVEY GEORGE SMITH

EXECUTIVE SECRETARY

NOTE: This Department will each month contain a discussion and report of our Society work and planned activities. Your interest and correspondence as to your problems is solicited.

THE CHEST CONFERENCE

The first Chest Conference for Michigan was held at Benton Harbor on May 5, 1925. Thirty-four doctors from Berrien, Cass, Kalamazoo and St. Joe counties were present. The conference consisted in a scientific program with discussions. The lectures were in charge of Doctors J. B. Jackson, B. A. Shepherd and Wm. R. Vis. That the program was of value was indicated by the extensive discussions and points raised by the audience.

A feature of the conference in addition to the scientific program was the luncheon at noon. This was an informal social gathering. Everyone present was a good fellow. Visiting and conferring went on as if old friends had met. There were several informal talks by Doctors Jackson, H. O. Westervlet, Secretary of the Berrien County Medical Society, Theo. J. Werle, Doctors Lupee and Green from Cass Counties, Dr. C. N. Sowers of Benton Harbor and Harvey George Smith, Executive Secretary. There was so much to discuss in an informal manner and so many interesting points to clear that most of the doctors felt well paid for coming to the conference just to be present at this fellowship luncheon. Two points discussed in addition to the subjects of the conference were the legislative activities with the accomplishments of the year and the membership of the Cass County Medical Society. As to the latter, steps were agreed upon by the five Cass County doctors to consider their own condition by holding a special meeting of the physicians and then determine whether or not the local society would be revived, or whether the membership would transfer into adjoining societies. Both the Berrien County Society and the Kalamazoo Academy of Medicine extended a welcome to membership in their respective bodies. The prevailing sentiment seemed to be in favor of reviving the local society of Cass County.

The First Chest Conference was a co-operative enterprise by the Michigan State Medical Society and the Michigan Tuberculosis Society. The Michigan Tuberculosis Society has pointed out as a result of careful study that Michigan had not made as much progress as was her right in reducing Tuberculosis in the state and further that from a national viewpoint the diseases of the heart were more serious at the present time than those of the lungs as more deaths were now recorded from the former.

Both Societies thoroughly recognize the need of solving these problems for the State of Michigan and both have agreed that special meetings or conferences for study by the phy-

sicians of the state would result in gains over these serious conditions which are impeding the health of the state. The science of medicine is always alert to conditions that seditiously undermine the health of the community and immediately takes measures to remedy such conditions in the interest of the public.

More of these special conferences will be arranged later. In the meantime both Societies will welcome suggestions as to how to secure the greatest results.

The following program was given:

10:30 a. m.—Opening Statements. J. B. Jackson, M. D., Councilor, Chairman; Harvey George Smith, Executive Secretary; Theo. J. Werle, Executive Secretary, Michigan Tuberculosis Society.

10:45 a. m.—"The Physical Examinations of the Chest With Anatomical and Pathological Conditions," B. A. Shepard, M. D., Kalamazoo.

11:25 a. m.—Discussion.

12:00 m.—Luncheon at the Eleanor Club.

2:30 p. m.—"The X-ray in Examination of the Chest," J. B. Jackson, M. D., Kalamazoo.

3:15 p. m.—Discussion.

3:30 p. m.—"Differential Diagnosis," Wm. R. Vis, M. D., Grand Rapids.

4:15 p. m.—Discussion.

SOCIETY PROGRAM TEAMS

When the Secretaries met in conference on April 22, a contribution was made to the Society activities. The suggestion was advanced that County Societies help each other in scientific programs. Each County Society could organize at least one team of two physicians who could and would visit nearby County Societies and give a discussion on a single or related subjects. Many of the smaller Societies find it difficult to secure speakers from a distance and at the same time find it difficult to keep up inteerst in their own programs. Each Society has a large enough membership to give three proprams but may find real difficulty in giving ten or twelve. If a friendly relationship can be established with three adjoining Societies, a program can be arranged at least once each month. In addition to the scientific gains in programs a social development would also follow. The physicians of two, three, four, or five counties would become better acquainted, would become friends and the result would be the advancement of scientific medicine for an entire district.

Upon reading this suggestion you naturally come to the next—that of helping each other in the community program—the lectures for the Parent-Teachers' Associations, noon-day luncheon clubs, high schools and churches. The community in most cases is more interested in the speaker from away even though there is as good talent at home. Societies should secure the consent of a number of their members to take part in these programs. Two members can easily prepare related material for public lectures. This plan does not interfere with but supplements that of the single speaker. Each Society should be ready with both single speakers and team speakers to take part in public health activities in near-by counties.

These are suggestions for the improvement of the scientific programs and for helping the County Societies to be effective in the work of the community. This is a co-operative enterprise and one which has future values. Are you ready to advance your profession, the health of the community and the science of medicine? If you are, try these suggestions and make reports of your accomplishments.

THE SECRETARIES' CONFERENCE

The papers and discussions of the Secretary's Conference are printed in full in this number of The Journal. The problems and methods of solution involved in organized and scientific medicine are there recorded. The small Society and the large show different problems, but the same aims, the advancement of scientific medicine.

In the conference special interest was evident in scientific programs, publicity, community health, community activities, methods, friendship and how the County Medical Society could become active as an organization in community affairs.

No one can attend conferences without gaining information. The Secretaries present at this conference contributed wisely in papers and discussions and received information as well as gave. Secretaries not present missed much. They should refer to the records of the conference for use in their own Societies.

The following Secretaries, Officers and Councilors were present:

SECRETARIES AT CONFERENCE

Alpena County—C. M. Williams, M. D., Alpena.

Antrim, Charlevoix, Emmet County—B. H. VanLeuven, M. D., Petoskey.

Calhoun County—Lloyd E. Verity, M. D., Battle Creek.

Genesee County—E. J. Curry, M. D., Flint.

Houghton, Barago, Keweenaw County—G. C. Stewart, M. D., Hancock.

Ingham County—H. L. French, M. D., Lansing.

Gratiot, Isabella, Clare County—E. M. Highfield, M. D., Riverdale.

Jackson County—S. F. Kudner, M. D., Jackson.

Kalamazoo, Van Buren, Allegan County—W. E. Shackelton, M. D., Kalamazoo.

Kent County—H. T. Clay, M. D., Grand Rapids.

Muskegon County—P. S. Wilson, M. D., Muskegon Heights.

Saginaw County—A. R. McKinney, M. D., (for F. J. Cady, M. D.), Saginaw.

St. Clair County—H. O. Brush, M. D., Port Huron.

Wexford, Kalkaska, Missaukee—Tri-County—W. Joe Smith, M. D., Cadillac.

Tuscola County—E. G. Bovill, M. D., Caro.

OFFICERS AND COUNCILORS

Charles D. Clancy, M. D., President, Port Huron.
C. D. Darling, M. D., Councilor 14th District, Ann Arbor.
B. R. Corbus, M. D., Councilor 5th District, Grand Rapids.
O. L. Ricker, M. D., Councilor 9th Ditsrict, Cadillac.
B. H. Van Leuven, M. D., Councilor 13th District, Petoskey.
J. B. Jackson, M. D., President of the Executive Committee, Kalamazoo.
F. C. Warnshuis, M. D., Secretary-Editor, Grand Rapids.
Harvey George Smith, Executive Secretary, Grand Rapids.

SOCIETY PICNICS

Will it be a barbecue, a brigand steak or just a plain beefsteak picnic dinner? Will it be a stag party of the medical fraternity alone or with the dental society? Will it be a social function to which the good ladies are invited? These are questions that each Society will settle for itself. The important problem to settle is when shall we have our picnic and where.

It is a grand and glorious feeling to drive out ten, fifteen, or twenty miles to the side of a lake, a river, a brook, or even a good wood and forget the heavy duties of each day. The old experienced camper of the Society builds the fire and lights it with a single match. Some one finds the smooth stones for the broiling of the steak, another brings up the wood, a second fire is built for the coffee and the baking of some choice Michigan potatoes. Let no one forget the rich cream and sugar for the coffee, and as important, the coffee pots themselves.

The picnic is really an institution of our ancestors. It is not supposed to be garnished with all the conveniences of a modern home or hotel. To go on a real picnic means to leave formality at home, call John, John and not doctor. It means a flannel shirt, an old suit and old shoes. Each one broils his own beefsteak on the end of a long handled fork, or a green stick; perchance drops it in the ash once or twice before done and finally places it between two slices of brown bread. It's food with a natural taste; and what an appetite. There are coffee and pie or strawberries to satisfy the lingering taste and cigarets and cigars

We sit by the faintly glowing embers and watch the last beams of the hidden sun pass into the night. The picnic is at an end. We have had more fun than any time during the year and we have learned to know our fellow practitioner. It has been a *picnic*..

Deaths

Dr. Roy T. Urquhart, Grand Rapids, died on May 18th, following a long illness from cancer of the larnyx. Dr. Urquhart was 47 years of age, a graduate of the Medical Department of the University of Illinois. He had practiced in Grand Rapids for 18 years, limiting his work to the Ear, Nose and Throat. He was a member of the Kent County Medical, State and American Medical Associations. Burial was in Grand Rapids.

In the death of Dr. Noah Bates, April 21st, Genesee County Medical Society has lost one of its most loyal, faithful and conscientious members. Loyal by being a supporter of the principles of the Society, by being a regular attendant at its meetings, and ever ready to assist or say a kindly word of his confreres.

Faithful in all duties placed upon him as a charter member, as one of a committee, or as an officer. The smallest detail was not too trivial for his attention and consideration.

Conscientious—keenly so—ever alert and sensitive to fulfill his duties with dignity and moral courage. His habits of practice were exemplar. Responding to a call, day or night—far or near, with dispatch, over primeval roads with horse and buggy. A promise with him was as sacred as an oath.

At an appointment he was the first to meet it. His remarkable interest in our local Society has not waned even in these last years of advanced age. To those of us who have been privileged to know him we have always found him courteous and pleasant.

For these sterling qualities he has been honored as no other member of the Society has been, by being elected President for four consecutive years. On October 29, 1912, the Society tendered him a testimonial banquet at the Dresden Hotel.

To his widow who has enjoyed sixty-five years companionship, we convey especially our sincere sympathy and kindly respects. With the other members of the family we mourn the loss of an inspiring councilor and friend.

In behalf of the Genesee County Medical Society, the Committee recommended that this resolution be spread upon its archives, that a copy be sent to the State Journal for publication, and that another copy, together with an appropriate bouquet of flowers, be sent to his family.

April 29, 1925.

Committee,
Fred B. Miner
J. G. R. Manwaring
A. A. Patterson.

County Society News

LAPEER CO.

The April meeting of the Lapeer County Medical Society was held at Imlay City on April 9, 1925. Those present were, Doctors Jones, Temmer, Kay, Webster, Fonner, Seatt, Chapin, Tinker, Martin, Marsh, Crankshaw, Thomas, Best and G. R. J. Manwaring of Flint.

Meeting called to order at 11 a. m. by President Martin.

Minutes of last meeting read and approved.

Moved and supported that the Secretary be instructed to send a copy of the minutes of the Society meetings to the Editor of The State Journal for publication. Carried.

A letter from Dr. A. O. Boldton, of Gladwin, was read, in which he stated he had joined Bay County Society, as it was closer to him than Lapeer, where he has formerly been a member. There being no County Society in Gladwin County because

there are only four doctors in the county, it is necessary for them to join adjacent counties.

Letter was received and placed on file.

It was decided to hold the May meeting at North Branch, the subject to be "Diphtheria," and the meeting to consist of a round table discussion of this subject in which every member was to take a part, giving his personal experiences.

A splendid dinner was then enjoyed which was a great credit to Imlay City.

After dinner Dr. G. R. J. Manwaring, of Flint, gave a talk relating his experiences in the clinics of Europe during his trip there in 1924, which was much enjoyed as it showed the hospital methods and asepsis practiced in American hospitals are equal, if not better, than that found in Europe. Many of our members expressed their delight with Dr. Manwaring's talk.

Dr. Jones, of Imlay City, our venerable dean, with over 60 years in active practice to his credit and still active, then offered in his usual excellent language, a vote of thanks of the Society to Dr. Manwaring for his interesting talk.

This was supported by Dr. Kay and unanimously carried.

Meeting then adjourned until next regular on second Thursday in May.

Please take notice that the officers of the Lapeer County Medical Society for the year 1925 are as follows: President, Dr. P. E. Martin, Imlay City; Secretary-Treasurer, Dr. H. M. Best, Lapeer.

M. M. Best, Secretary.

MUSKEGON COUNTY

A regular meeting of the Muskegon County Medical Society was held following a banquet at the Occidental Hotel on the evening of May 1st. Twenty-two members and eleven guests were present. All business was dispensed with and the evening was given to an illustrated lecture by our guest, Dr. T. Leucutia, roentgenologist at Harper Hospital, Detroit. Dr. Leucutia demonstrated by lantern slides of roentgenograms and micro-photographs, some of the wonderful results that he is getting with deep X-ray therapy in the deep-seated neoplasms. His excellent talk brought forth many questions, and made manifest the interest of our members, in the subject. It is hoped Dr. Leucutia may meet with us again, that we may follow his work.

P. S. Wilson, Secretary.

WAYNE COUNTY

On April 6, 1925, the Society was fortunate in having the opportunity of hearing George Clark Mosher, M. D., of Kansas City, speak on "The Progress of Maternal Welfare," in which he outlined the methods in use throughout the country in lowering the infant mortality rate. Coming as he did with a wide experience as an obstetrician and gynecologist and in his position as Chairman of the Maternal Welfare Committee of the American Association of Gynecologists, Obstericians and Abdominal Surgeons, the Society expected much, and no one who heard his splendid address was disappointed.

On April 13, 1925, Frank N. Wilson, M. D., Professor of Internal Medicine, University of Michigan, regaled us with an excellent review of the present status of the "Treatment of Heart Disease."

On April 20, 1925, a demonstration of clinical cases with a discussion of their diagnosis and management was brought before us by the members of the Detroit Dermatological Society. At this meeting Dr. Guy L. Kiefer presented the Society with a portrait of Dr. Benjamin Waterhouse, well called "the Jenner of America," who was the first in this country to use cow-pox inoculation as a protective agency against small-pox.

On April 27, 1925, Harry C. Saltzstein, M. D., spoke before the Surgical Section on the "Role of the Lymphatic Glands in the Spread and Cure of Cancer."

Of unusual interest were announcements received during the month that the 1926 convention of the American Congress of Internal Medicine and the American College of Physicians will be held in Detroit.

We take pleasure in announcing the inauguration of a daily Bulletin outlining the surgical and medical happenings in Detroit. These bulletins are issued daily from the office of the Wayne County Medical Society and anyone in Detroit having a day or more may be appraised of anything which may be going on in a medical line by consulting the bulletins which are posted on the boards at the various hospitals, or may be obtained from the office of the Secretary of the Society.

Very truly yours,

Richard M. McLean, Secretary.

HOUGHTON COUNTY

The Houghton County Medical Society held its regular monthly meeting at the science room of the Calumet High School, Calumet, Michigan, with twenty-seven members present.

After the reading of the minutes the application of Dr. Arthur P. Wilkinson, L'Anse, was received and was acceped for membership in the Society; a motion was made by Dr. Harkness that the Society support the movement for the clinic for crippled children to be held in Houghton County soon. Doctors Moore and Bourland were appointed by the chairman to act as a committee to draw up resolutions on the death of our fellow member, Dr. George Reese of the C. & H. Staff.

The following films of motion pictures were next shown:

1. Suprapubic incision and Electro-Coagulation of Carcinoma of Bladder by Dr. Kolischer.
2. Electro-Coagulation of Tonsils, by Dr. R. C. Elmer.
3. Application of Diathermy and Contractural currents in treatment of Industrial Injury Cases, by Dr. Duval.
4. Treatment of Acute Gonorrhea with Diathermy, by Dr. C. W. Funk.

Also 160 slides of application of Diathermy in many conditions were shown.

A vote of thanks was extended to Dr. Gregg and Messrs. Jones and McKinnon for helping to make the program a success. This meeting brought out our largest attendance and everyone seemed well pleased and interested in the program.

After a free discussion of the films, the Society adjourned to lunch at the Miscowaubik Club.

Yours very truly,

G. C. Stewart, Secretary.

CLINTON COUNTY

Due to unfavorable weather conditions of the previous winter and the widely scattered residences of its members, the Clinton County Medical Society was unable to hold its monthly meetings as regularly as it should, but with the approaching of balmy spring weather Society activities will again assume full swing.

One of the most interesting and successful meetings that the Society ever had was held at the Steel Hotel of this city on Thursday evening, April 30, 1925. We were very fortunate in having with us as guests some of our very prominent physicians and surgeons from Grand Rapids and Flint, who helped to make the program of the evening very interesting and instructive. The Society is also grateful to two of its members, Doctors W. A. Scott and A. C. Henthorn, who furnished the splendid dinner for the evening.

The evening program was opened with the Secretary's reading of the minutes of the previous meeting, which was approved as read. Then followed Dr. Wm. Veenboer's paper on the "Diagnosis of Internal Obstruction." This very important subject in surgery was very excellently presented, and afforded the audience much instructive information. Dr. Beenboer laid particular emphasis on the importance in the early diagnosis of cases of suspicious intestinal obstruction, as much of the prognosis of these cases depended solely on the early diagnosis.

The next paper of equal importance was "Shock," which was comprehensively presented by Dr. H. E. Randall of Flint. In the course of Dr. Randall's presentation of his paper he pointed out the danger points, such as marked hypotension and tachycardia. A blood pressure of 70 mm. systolic is an extremely grave prognostic sign and demands drastic measures in treatment if a live patient is expected. One of the drugs used in meeting such exigencies is insulin combined with glucose, and the result according to the writer was remarkable.

Dr. Jickling, of Flint, read a very instructive paper on "Malnutrition in Children." He also obtained excellent results from insulin in proper dosages in treatment of cases of malnutrition.

Other papers of intense importance and interest were presented by Dr. Vis of Grand Rapids, who talked on "Medical Problems in Surgery;" Dr. Blakely, on "Head Injuries," and Dr. Manwarning on "Indication and Contra-indications for Radium."

The program was then brought to a close giving those present a sense of satisfaction that they have learned something worth while from listening and discussing these excellent papers.

Motion was then moved and seconded that the meeting be adjourned. Motion carried.

T. Y. Ho, Secretary.

BAY CO.

The Society has suffered the loss of its President, Dr. C. A. Trophagen, who died Saturday, May 9th, of chronic interstitiat nephritis.

The Bay County Society has discontinued its meetings until September. Very interesting programs have been carried out the first half of the year as follows:

February 9—Dr. Theophile Klingman, Ann Arbor, "Why Mental Disorders Arise."

February 23.—Dr. A. D. Allen, Bay City, "Social and Economic Aspects of Insanity."

January 12.—Dr. R. H. Creswell, Bay City, "The Relation of the Specialist and Practitioner."

March 9.—E. F. Ford, Esq., Fort Wayne, Ind., "Medical Jurisprudence."

March 30.—I. H. Baker, Esq., Bay City, "Investments."

April 13.—Dr. A. G. Mitchell, Professor of Pediatrics, University of Cincinnati, "Acute Nutritional Disturbances of Infancy."

April 27.—Dr. P. M. Hickey, Ann Arbor, "Hypeinephroma."

May 11.—Dr. Walter Welz, Detroit, "Reduction of Maternal Death Rate in Obstetrics."

May 21st, Doctors Ballard, Urmston, Allen and Foster, of Bay City will put on a program for the Alpena Society. The latter will reciprocate at Bay City in September.

No successor will be elected to take President Traphagen's place. The Vice President, Dr. Dumond, will act the remainder of the year and the annual banquet, December next, will be as a memorial to Dr. Traphagen.

L. Fernald Foster, Secretary.

ALPENA CO.

The regular meeting of the Alpena County Medical Society was held April 16th at the home of Dr. S. T. Bell. The scientific program consisted of a paper on "Ocular Injuries," by Dr. William Newton, Alpena. The paper summarized the various injuries to which the eye is liable and laid out the course of treatment to be pursued. Particular interest was shown in the discussion of foreign bodies in the eye. Following the scientific meeting a social hour was enjoyed during which Mrs. Bell served light refreshments. Miss Emma Potter also entertained with several recitations.

The Bay County Medical Society has been asked to take charge of our program on May 21st.

C. M. Williams, Secretary.

IONIA-MONTCALM CO.

The April meeting of the Ionia-Montcalm Medical Society was held Thursday evening, April 23rd, at Greenville, Mich. An excellent dinner was served to eighteen members by the Hotel Phelps, which was enjoyed by all.

Subject—"Fractures."

Speaker—Dr. Wm. J. DuBoise, Grand Rapids, Michigan.

Dr. DuBois presented his subject in a most interesting and practical manner, giving the important points in diagnosis and reduction of the fracture, also the after treatment. The following points weer emphasized:

First—As early a reduction of the fracture as possible, following the injury and with greater care in immobilizing the part until this is brought about.

Second—Never make diagnosis or reduction without proper X-ray skiagraphs to determine the exact damage done. X-ray after reduction.

Third—General anaesthetic for examination and reduction.

Fourth—Exercise extreme gentleness in the manipulation of the broken parts when the reduction is made.

Fifth—After complete reduction and coaptation apply proper splints to immobilize parts and secure rest.

Sixth—Early gentle massage, active and passive motion.

The members present entered into a free discussion of the subject as well as asking many questions. A rising vote of thanks was extended Dr. DuBoise for presenting this practical and interesting talk.

The second speaker of the evening was Dr. Francis J. Fralick, Greenville, Michigan.

Subject—"Exhibition of Skyagraphs and X-ray Diagnosis."

Dr. Fralick's talk and exhibition of skiagraphs was well reecived. The plates presented covered every conceivable fracture and many interesting chest skiagraphs. The discussion of plates lasted until after midnight which speaks for the interest taken in the subject.

F. A. Johnson, Secretary.

Among the Books

A Review and Frank Appraisal of Medical Books That are Proffered to the Profession by Publishers.

DYSPEPSIA: ITS VARIETIES AND TREATMENT—By W. Soltau Fenwick, M. D., B. S. (London), late physician to the Evelina Hospital for Sick Children, London. Second Edition, Revised. Octavo of 515 pages illustrated. Cloth, $6 net. W. B. Saunders Co., Philadelphia and London.

We don't like the word dyspepsia. To long has it served as a "catch-all" for gastric and intestinal diseases. It inspired a laziness. This text sets for the whole gamut of gastro-intestinal ailments that might come under the one term dyspepsia, but it points out the etiological factors of each and so indicates the differential diagnosis. In this will be found the value of the author's experience and conclusions.

THE MEDICAL CLINICS OF NORTH AMERICA—(Issued serially, one number every month.) Volume VIII, No. IV, (Mayo Clinic number, January, 1925). Octavo of 374 pages with 66 illustrations. Per clinic year (July, 1924, to May, 1925). Paper $12.0; cloth, $16.00. W. B. Saunders Company, Philadelphia and London.

Received.

THE MEDICAL CLINICS OF NORTH AMERICA—(Issued serially, one number every other month). Volume VIII, No. V., March 1925. (Boston number), Octavo of 247 pages and 21 illustrations. Per clinic year, (July, 1924, to May, 1925). Paper $12.00; cloth, $16.00 net. W. B. Saunders Company, Philadelphia and London.

Received.

INTERNATIONAL CLINICS—Volume 1—35 series. J. B. Lippincott Co., Philadelphia.

Received.

THE TECHNIC OF LOCAL ANESTHESIA, by A. E. Hertzler, M. D. Third edition, 140 illustrations. Price $5.50. C. V. Mosby Co., St Louis, Mo.

A well prepared text imparting the principles of local anesthesia technic. The practical proceedures and essential details are well described and some are excellently illustrated. Very helpful in assisting to overcome difficulty of procedures. We are especially pleased by its clearness of language and the absence of non-essentials.

CLINICAL FEATURES OF HEART DISEASE, by Leroy Crumer, M D., University of Nebraska. Cloth, $3.00. Paul B. Hoeber, Inc., New York.

This is a timely text. It interprets clinical findings. It sets forth the practical points of physical examination. It imparts what one may conclude from diagnostic findings. It aids in analizing the clinical features. It therefor helps one to draw definite conclusions and so assists in making reliable diagnoses as well as advancing a prognosis. In this day when heart diseases figure so prominently as the cause of human disability it is very essential that physicians concern themselves with the problem. This text will enable one to do so more intelligently.

DIET IN HEALTH AND DISEASE—By Julius Friedenwald, M. D., Professor of Gastro-Enterology in the University of Maryland School of Medicine, Baltimore; and John Ruhrah, M. D., Professor of Diseases of Children in the University of Maryland, Baltimore. Sixth edition, thoroughly revised. Octavo of 987 pages. Cloth, $8.00 net. W. B. Saunders Company, Philadelphia and London.

No physician or surgeon should be without a reliable text on diet. We know of no text so satisfactory and helpful as this. It clearly sets forth the fundamentals and accepted principles of diet and the value of food in disease as well as health. It amply meets the needs of every practitioner and has a practicality that is of added merit. Many diet lists and special recipes are other features as well as the value of individual food stuffs that are set forth in understandable tables.

THE HEALTH—CARE OF THE BABY—Louis Fisher, M. D. Funk and Wagnalls, New York.

Fifteenth edition of this text which supplies the parent with much needed instruction. Wise counsel is given.

DISEASES OF CHILDREN FOR NURSES—Including Pediatric Nursing, Infant Feeding, Therapeutic Measures Employed in Childhood, Treatment for Emergencies, Prophylaxis and Hygiene. By Robert S. McCombs, M. D., Associate in Medicine at the Philadelphia Polyclinic; instructor of nurses at the Children's Hospital of Philadelphia. Fifth Edition, thoroughly revised. Octavo of 581 pages, illustrated. Cloth, $2.75 net. W. B. Saunders Company, Philadelphia and London.

Here is a very excellent text for student nurses. It is abreast of the recent advancements in pediatrics. The text is adequately illustrated and so clarifies the subject for the student. This book merits placement as a standard text in every training school.

The Journal
OF THE
Michigan State Medical Society
ISSUED MONTHLY UNDER THE DIRECTION OF THE COUNCIL

Vol. XXIV. GRAND RAPIDS, MICH., JULY, 1925 No. 7

Original Articles

AN OPERATION FOR CONCEALED PROLAPSE OF THE RECTUM AND SIGMOID*

LOUIS J. HIRSCHMAN, M .D., F. A. C. S.
DETROIT, MICHIGAN

There are many varieties and degrees of prolapse of the rectum. As a matter of fact, prolapse of some portion of the rectum or one or more of its coats is far more frequently observed now than formerly, due to better methods of examination and diagnosis and to increased knowledge of proctologic methods of procedure. Generally, earlier and better diagnoses are being made. It is not quite so frequent today as it was formerly, to be called in consultation by an internist or general practitioner in a case of "prolapse," and then to find nothing more than prolapsed and protruding hemorrhoids. Any type of rectal or anal prolapse which presents itself outside of the anal orifice, whether under stress or not, is not difficult to diagnose, as a general rule.

The patient who suffers from obstructive symptoms, however, which are aggravated by straining efforts, often goes from one physician to another to seek relief before a true diagnosis is made.

Prolapse of the recto-sigmoid is nearly always a concealed prolapse. (Fig. 1.)

It is a true intussusception which involves the rectum, and in addition the lower portion of the pelvic colon as well. The surgical relief of this condition must take into consideration not merely the restoration of the prolapsed rectum to its normal site, but also to do this in a manner as nearly approaching that of nature as is possible. Any operation which aims to cure this condition by merely removing or amputating the prolapsed or protruding portion, is doomed to meet with ultimate failure. Likewise, any operative procedure which aims to anchor a prolapsed bowel to an immovable abdominal or peritoneal surface, is unscientific and apt to meet with disastrous results.

The very fact that so many different types of operation for relief of prolapse, particularly of the above degree, are being offered to the profession, furnishes conclusive evidence that a satisfactory procedure has not as yet been put into general use. The various "pexies" which have been advocated for years for the suspension of various floating or misplaced organs, were all designed to fix or anchor a movable organ to an immovable surface. Their failure to relieve the symptoms caused by the mal-position were only to be naturally expected. The large bowel, and particularly, the portion above the levator level is decidedly a movable organ. The pelvic colon may occupy any portion of the pelvis.

The rectum ,in order to properly perform its part in the production of peristalsis, has to have free motion in its vertical as well as its transverse diameter. A long continued condition of constipation or obstipation, with exaggerated peristaltic effort accompanied by the drag caused by the increased weight of unduly prolonged retention of feces produces concealed prolapse.

As soon as the dried fecal material adherent to the rectal mucosa causes peristaltic stimulation, potential prolapse is present. The increased and unnatural effort to empty the bowel is first exerted on the mucosa. If its attachment to the muscularis is weak, mucosal prolapse only is produced. If there is any tendency to unusual elasticity in the meso-sigmoid, then the increased peristaltic effort is expended not only on the contents of the bowel, but upon the bowel wall itself. As a result, all the coats of the pelvic colon and the rectum telescope or prolapse during expulsive efforts. (See Fig. 1.)

In the female patient who has had perineal injury, the type of prolapse may be accompanied also by any of the varying degrees of ano-rectal eversion. In fact, it is not at all uncommon to have both conditions present. Concealed prolapse or in-

*Read in joint meeting of Sub-section of Proctology of the Royal Society of Medicine, and the American Proctologic Society at London, England, July 8, 9, 10, 1924.

Fig. 1.

tussusception of the pelvic colon into the rectum frequently occurs in patients on whom a hysterectomy has been performed.

The operation devised and used by the author for nearly twenty years, was first described in a paper presented before the Section on Abdominal Surgery and Gynecology of the American Medical Association in Chicago ,in 1908. This paper was published in the Journal of the American Medical Association, October 3, 1908. The operation has been used many times since that date, with uniformly good results, and, with slight modifications necessitated in individual cases, is still being employed.

The patient is prepared in the usual manner for any abdominal operation. The choice of anesthetics rests with the preference of the individual operator. If one is accustomed to doing abdominal surgery under local or spinal anesthesia, there is no reason why this operation should not be performed without general narcosis .The author has performed the operation a number of times under local anesthesia, with very good results. Gas-oxygen, ethylene, or either of these combined with ether, or ether alone, may be used if one so desires.

An incision slightly to the left of the midline is employed, and the sigmoid or pelvic colon exposed. The Trendelenburg position, particularly in stout patients, is oftentimes of advantage. The pelvic colon is drawn out of the wound, and the upper or anterior side of the intra-sigmoidal fossa exposed. Before traction is put upon the prolapsed bowel, an assistant makes a digital rectal examination, and he will note when traction is put upon the bowel, how the prolapse is immediately relieved. When the relief of the prolapse is complete, the intra-sigmoidal fossa is obliterated by two or three rows of cat-gut stitches extending from the peritoneal coat of the mesentery of one side to the other. (See Fig. 2). The stitches are inserted parallel to the direction of the blood vessels and between them, and extend only through the peritoneum of the mesentery. In this way, injury to the blood vessels is avoided, and hemorrhage does not occur. The opposing peritoneal surfaces of this fossa are lightly scarified with the point of a scalpel or a needle, so as to insure good adhesion.

The lower row of sutures is then tied, bringing the serous surfaces together. It can then be determined whether one or two additional rows of sutures will be required to obliterate the fossa so that the bowel edges of this portion of the sigmoidal curve are brought to within an inch and a half or two inches of each other. These sutures are placed so that the lower-most suture when tied draws up the prolapsed portion of the bowel, reduces the intussusception, and is attached at the root of the mesentery. The other stitches follow naturally so as to hold the bowel in corrected position. When all sutures are placed and tied, the condition is well illustrated in Fig. 3. The prolapse is reduced. The elongated mesentery has been shortened without the excision of any tissue, and is made to adhere to itself in such a way that it produces a shortened, thickened and

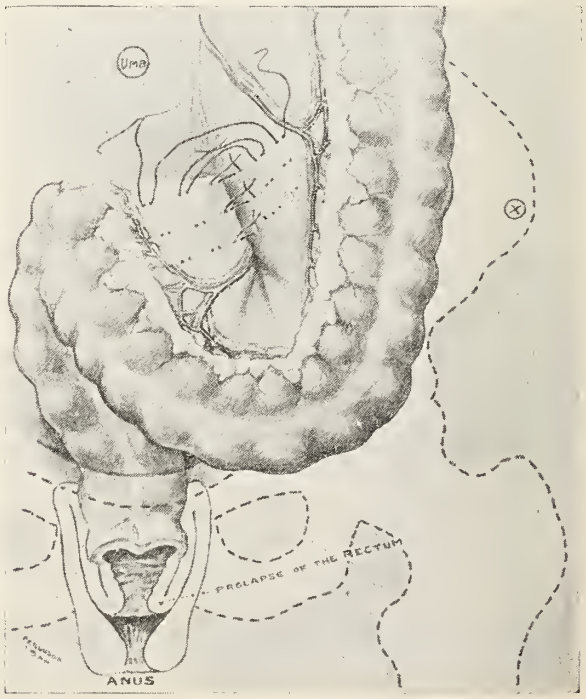

Fig. 2.

strengthened mesentery for the pelvic colon. There is no attachment of the movable bowel to an immovable abdominal surface, the entire procedure has been performed on the bowel's natural suspensory apparatus,

Fig. 3.

which is the mesentery. Circulation has not been interfered with, and function is restored. There is no kinking or undue parallelism of the pelvic colon. As a matter of fact, the kinking caused by the prolapse is of course obliterated. By the restoration of natural position, peristalsis is again normally established, thus preventing the conditions which originally produced the prolapse.

If adhesions of the prolapsed bowel to the broad ligaments or other pelvic organs are discovered when the abdomen is opened, these, of course, must be relieved and the denuded surfaces peritonealized; a lacerated perineum must be repaired, and if hemorrhoids or mucosal prolapse is present, the indicated surgical procedures for their relief must also be employed.

After the operation it is unnecessary to use any packing or drainage in the rectum. The patient is put on liquid diet for two or three days, and two ounces of mineral oil administered every night. Defecation is encouraged on the third or fourth day by the administration of a one-pint soda bicarbonate enema. It is perfectly safe to allow the patient to be out of bed by the tenth day.

This procedure more nearly restores malposed bowel than any other, and by its simplicity, is made available for anyone who performs abdominal surgery. The hygienic, dietetic and other means ordinarily used to restore normal, regular bowel evacuations should not be neglected, even after the surgical relief of this condition.

THE SANOCRYSIN AND SERUM TREATMENT OF TUBERCULOSIS

BRUCE H. DOUGLAS, M. D.
NORTHVILLE, MICHIGAN

Having had an opportunity to see at first hand the use of Sanocrysin and serum as used in the clinics of Copenhagen for the treatment of human tuberculosis, a report of these observations may be of interest in lieu of the wide-spread publicity given the popularly named "gold treatment."

Work with the salts of heavy metals, particularly gold and copper, has occupied some of the best research men for years, so that the work of Mollgaard, of Copenhagen, is not entirely new in pointing out the tuberculocidal properties of certain gold salts.

Koch, soon after the discovery of the tubercle bacillus, found that gold cyanide in one to two million dilution prevented the growth of tubercle bacilli in vitro, but, when used in vivo, broke down into products harmful to the host, with no action on the bacilli.

In more recent years Adolph Feldt brought out first aurocantan, a preparation made from gold and cantharides; then, in collaboration with Spies, a more complex preparation called Krysolgan was brought out.

The first of these preparations was soon abandoned. Krysolgan is still being used, the present procedure being to use it in very small doses and not to the point of getting any true chemo-therapeutic effect, by reason of being strongly tuberculocidal. Feldt explains the action as that of a catalytic agent stimulating the defensive reactions of the body against tubercle.

Holger Mollgaard, M. D., Professor of Physiology in the Royal Veterinary College of Denmark, some five years ago began work with gold salts in the attempt to find an inorganic salt which would be tuberculocidal in vivo without breaking down into products that were toxic to the host. After prolonged experimentation, the salt sodium gold thiosulphate, when made chemically pure, was found to be such a substance, and, in addition, to be readily soluble and diffusible. This inorganic salt has been known to

chemists for some time and cannot be said to have been originated by Mollgaard. However, he has first used it as a therapeutic agent against tuberculosis and to this salt he has given the name sanocrysin.

The experimental work was largely done on calves, though a few monkeys were treated. The experiments have chiefly consisted in infecting calves with bovine tubercle, then treating them with the gold salt. It was early found that animals with extensive tuberculosis of the lungs gave a very strong reaction to the drug after intravenous injection and many of them died, whereas those that had very little tuberculosis survived and were benefited by the treatment. Mollgaard also reports that normal calves with no tuberculosis do not react to sanocrysin, even when given very large amounts. This difference in reaction between normal and tuberculous animals is, after all, the basis for the elaboration of the whole sanocrysin claim to value as a therapeutic measure in tuberculosis. Upon this point the Danish worker has built up the theoretical explanation of the treatment which is as follows:

Sanocrysin, it is claimed, is capable of breaking down tubercle bacilli with the liberation of large amounts of tuberculoprotein, endo-toxins, or tuberculins, which produce a severe intoxication in the host, but which, if there is a small amount of tubercle present, is withstood well and the host benefited thereby. If there is extensive tubercle present, the broken down bacilli cause such an intoxication that shock occurs and very often death.

Following this reasoning, Mollgaard developed a serum with anti-tuberculin properties with which it is claimed the toxins or tuberculins are neutralized, so that the untoward symptoms resulting from sanocrysin administration may be minimized or prevented.

Such a serum was made originally from calves by immunizing them to tuberculin. Whether such a serum is an anti-tuberculin serum has not been positively proven, though it is known to show such a property when tested with complement fixation methods. Such a test, however, is not, of course, positive evidence of the efficacy of the serum.

The serum used more recently and for which greater anti-tuberculin properties are claimed, is made from horses immunized to the diaplyte or defatted vaccine of Dreyer, of Oxford, England. This serum has the added advantage of being more suitable for intravenous injestion, since horse serum is more compatible with human serum than is calf serum, and hence safer to use.

Essentially, then, the treatment as proposed consists in killing the available tubercle bacilli in the host by sanocrysin administration and neutralizing the untoward effects of broken down bacilli with anti-tuberculin serum, the host benefitting then from the actual administration of the tubercle bacilli from his body.

The experimental work brought out in defense of this theory is not entirely convincing.

In the first place, sanocrysin does not kill tubercle bacilli in vitro, though it will inhibit growth. Here Mollgaard stresses the chemocepter theory of Erhlich and explains that in vivo the bacilli are killed or rendered harmless. As evidence substantiating this, it is pointed out that a suspension of tubercle bacilli injected under the skin of a guinea pig, when allowed to remain a short time and then sanocrysin injected, and after another short period the fluid from this artificially produced lesion aspirated, shows many granules of Much type, granulated bacilli, and most of the intact organisms to have lost their acid fast properties. It is also pointed out that organisms in the sputum of patients treated with sanocrysin under-go these same changes before disappearing from the sputum.

The experimental work in establishing the curative properties of sanocrysin and serum have consisted in infecting calves with bovine tubercle and, after the disease shows clinical manifestations, treating them with sanocrysin and serum. Many of these results are quite striking in showing healing of the disease in the calves as demonstrated by autopsies on the killed animals.

The work is completely described in Mollgaard's book, "The Chemo-therapy of Tuberculosis," which gives all the protocols and discussions on the experimental work. This book also describes the clinical work done in Copenhagen, and must be commended as a frank presentation of the work, with nothing held back, both good and bad results being all described.

CLINICAL OBSERVATIONS

A year ago last fall the experimental work had reached such a state that Mollgaard felt that the treatment could be tried in the human clinic. Accordingly, several clinicians were interested in the project and the treatment of human cases was undertaken.

It was my privilege to see the treatment administered and to go over with many of

the clinicians the results of their work as they interpreted it after one year's use.

Doctors Secher and Folkner at Bispebjerg Hospital, who have treated the largest group, some 170 cases, allowed me to follow their cases daily in Copenhagen.

The other men interviewed and many of whose cases were seen were: Prof. Fabre, of the Riggs Hospital, 25 cases; Dr. Lomholt, Finser Institute, 30 cases; Dr. Wurtzen and Dr. Peterson, of the Oresuns Hospital, 100 cases; Dr. Perimin, Fredericksburg Hospital, 25 cases, and Prof. Bie, Blegdams Hospital, 15 cases.

These men are well trained as general internists and have undertaken this form of treatment in their general hospital services. There has been no attempt to control any of these cases with parallel un-treated or usual sanatorium cases. The cases treated represent all types of tuberculosis and also represent some variation in the amounts of sanocrysin used.

In general, the type of case treated would fall into two groups: those with minimal tuberculosis involvement who would not react severely to the treatment, and those who had a hopeless prognosis and in whom any risk was justifiable in the hope of bringing even a small amount of benefit, such cases being acute miliary, caseous pneumonias or meningitis.

Relying implicitly upon the theory of the procedure of treatment as outlined by Mollgaard, several of these men were treating these cases after the following general scheme.

0.5 gram of sanocrysin is given intravenously and if no untoward result occurs on the third day, that is one day intervening, a second dose of 1 gram is given. Should there still be no reaction after a similar interval, a third dose of 1 gram is given. It is usually customary to give a dose of serum 20 c.c. intravenously with the third dose and serum is given whenever any untoward symptoms may appear. The urine is examined daily for albumin, this being an indication to suspend sanocrysin until it clears and to give serum to counteract it.

The typical reaction to sanocrysin is an elevation in temperature, which will occur after the second or third dose usually, and indicates theoretically at least, that tubercle bacilli are being broken down and the products of this disintigration are causing an intoxication.

No more sanocrysin is given until the temperature is down, albumin gone, if present, or any other symptoms subsided. Then more is given, which will again cause a reaction, though usually not so severe as previously. The process is continued until after six to ten doses there is no longer any reaction, which is then said to indicate that all available tubercle has been reached and sterilized and the patient's treatment is complete. This process may take from two to six months and very often has to be given up because of contra-indications in the way of complications which may arise. All the men referred to believe there is merit in this treatment and expect to continue its use.

In observing the patients during treatment, one is impressed at once that the measure is a most drastic one and attended always with much discomfort to the patient and not infrequently with grave risk of life.

The untoward complications that may arise are first shock, which can usually be prevented by administration of serum. This is the most dangerous complication and has been responsible for several deaths.

Rashes of varying types, from mild transient hyperemias to severe persisting petechial hemorrhages under the skin, which are most distressing to the patient, occur. Often there is a severe stomatitis o fmost painful type with the rash. These rashes occur in 60 to 70 per cent of the cases.

Acute nephritis with albuminuria occurs and may persist for some time.

Gastro-intestinal disturbances are manifested frequently by persistent nausea and distaste for food with an acute enteritis, accompanied by distressing diarrhoea.

There is usually loss of weight during treatment, though generally this is gained back quite rapidly afterward.

Joint pains occur frequently and a few times effusion into joints have been seen.

Jaundice of obstructive type has occurred at times.

Theoretically all the above were originally explained as being due to tuberculin poisoning, the result of the breaking down of tubercle bacilli in large numbers by sanocrysin, and that anti-tuberculin serum would minimize their effects. With the exception of stock, however, in the human clinic there is no demonstrable benefit from serum in clearing up symptoms.

While such symptoms have occasionally been seen in cases where large doses of tuberculin were given, one is much impressed with the similarity of these reactions to those occurring in poisoning with some of the heavy metals. Originally the Danish workers would not admit this possibility,

claiming that sanocrysin was non-toxic. Mollgaard, however, in a recent article in the British Medical Journal for April 4, concedes that there may be some mildly toxic effects upon the liver and kidneys, but still maintains that there is no seriously toxic property in the gold salt. The method of dosage has been changed to smaller amounts and longer intervals between doses and it is claimed fewer untoward symptoms arise.

A statistical study of the results of the use of sanocrysin is not at all flattering to the treatment, but in all fairness it must be said that some of the early types of disease where fibrosis has not occurred have cleared both physically and as demonstrated by the X-ray. However, such resolution occurs, we know, repeatedly with present methods, as has been shown so conclusively by Amberson in his series of cases from Loomis Sanatorium.

While in London I had the opportunity of seeing some of the cases under treatment with sanocrysin and serum under the direction of the Medical Research Council, a preliminary report of whose work appears in the Lancet for April 18th. This report, while not attempting to commend or condemn, can hardly be said to be flattering, and a tabulation of the twenty-one cases of tuberculosis treated for 3 months showed 7 improved, 5 no change, 5 definitely worse, and 4 deaths, 2 of which were sudden and directly ascribable to sanocrysin administration. When it is born in mind that these twenty-one cases were carefully selected by Mollgaard and Secher as being suitable to treat and who were, for the most part, cases with a favorable outlook under present methods, these results are not very commendatory and but bears out the impression of the speaker that there is far too grave an element of danger attendant on this treatmen at present to make it safe to use in the human clinic. The Sanocrysin Committee of the Medical Research Council, however, is continuing its studies and does not wish this to be considered in any sense a final report.

The experimental results in animals, as reported by Mollgaard, do indicate the possibility of some specificity of this or other gold salts for tubercle and warrant further study in this line. There is also some indication that the serum produced does protect the calf from untoward symptoms, particularly shock, so that there is sufficient evidence of merit to make it highly desirable to repeat the laboratory work and elaborate upon it so that the disputed questions of toxicity, ability to kill tubercle bacilli in vivo and the antituberculin properties of the serum may be either established or disproven, before work of any extent is carried out in the human clinic.

Such experimental work is being conducted under the direction of the Hygienic Laboratory at Washington at present and so far sanocrysin has not been used in the human clinic on this side of the water. No results of the work in Washington are yet available for publication and, while it is sincerely to be hoped that something of definite value may be found and safe methods for using it elaborated, it does seem that the very nature of the treatment will make its application a very limited one.

SUMMARY

1. The theoretical explanation of the sanocrysin and serum treatment for tuberculosis has not been proven.

2. The evidence of value is too meagre and the danger too great to warrant its use in the human clinic at present.

3. There is, however, sufficient evidence of the peculiar action of certain gold salts in tuberculosis, particularly sanocrysin, and also evidence of some specific property of the serum used in this treatment to make it decidedly worth while to continue the experimental work.

BURT LAKE ITCH, SKIN ERUPTION OF UNKNOWN CAUSE IN NORTHERN MICHIGAN

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While on duty at the University of Michigan summer school camps in Cheboygan County, an unfamiliar skin condition was first observed by the writer in 1919. It was observed in men who had been wading in the southern end of Burt Lake. During the following year it was found to affect other students who had waded in a beach pool of an adjoining lake. It was also reported among campers on that end of Burt Lake, who had bathed in the water. The circumstances and character of the lesions were such as to exclude the dermatoses resulting from the usual insect bites and plant poisons. The condition was beyond question a result of skin contact with the particular water. It was given some casual clinical and experimental study by a student, Dr. D. V. Hudson and the writer.

EXPERIMENTAL PRODUCTION

The extremities of a subject were exposed in the beach pool from ten to thirty minutes. The production of a decided itching was observed while the foot was still in the water, and during the next day lesions appeared on the parts exposed for the longest time. Vaseline covered parts were attacked less.

At a later time, water taken in buckets at random from the surface of the pool was used in the laboratory to expose a subject. Feet were exposed in this water at night for forty-five minutes. In about twenty-five minutes after removal a very disagreeable itching was noticed, particularly near the instep. At the end of twenty-four hours typical lesions appeared on exposed surfaces. From another thirty minutes similar exposure by wading in the pool, the subject developed 223 distinct lesions on the legs between ankles and knees. Dr. Paul Welch was unable to find anything of significance in the filtered residue of the water, and, as a result of a few observations, Dr. Wm. W. Cort could not demonstrate the presence of cercariae in the water. An examination of the water in Burt Lake failed to show anything of significance.

THE LESION

The lesion may be characterized as follows:

They were discrete, fairly regular, mildly hyperemic papules. Most of the lesions were not follicular. They were on a relatively wide, 5 to 8 mm base, and tended to be acuminate. There was in no case any sign of a puncture wound, but there early appeared a vesicular element in the top of the lesion, which, when opened, gave a serous exudate and suggestions of a minute irregularly shaped cavity. Many lesions and contents were examined under low magnification without disclosing any foreign material. Lesions involuted without breaking down or pustulation and were observed to be visible and slightly pruritic for two weeks.

Pending an adequate study of the question, the facts of similar observations or related discussions will be very much appreciated by the writer.

*From the X-ray Department of Mount Sinai Hospital, Cleveland, Ohio.

OUR EXPERIENCE WITH A NEW TYPE OF ARTIFICIAL LIGHT

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Since the introduction of the ultra-violet rays into therapy a considerable number of lamps have been constructed with the aim to produce a spectrum similar to that of the sun. It may be recalled that we understand by ultra-violet rays that part of the spectrum representing invisible rays of shorter wave length than the visible violet rays, ranging from 400-200 my-my.† These rays pass through quartz but not through ordinary glass. Physicists have taught us that in the spectrum of the sun rays below the wave length of 290 my-my are missing; and it can be assumed that those rays with a shorter wave length than 290 my-my—they are produced by the artificial lights—are injurious to the living cell. There is no doubt that it would be a step forward to have an artificial lamp which emits a spectrum similar to that of the sun, at the same time eliminating completely or to a large extend the shorter ultra-violet waves. A lamp of that type has been constructed by Landeker—Steinberg.*

In this type of lamp an arc light with special impregnated carbons is used, and it is a fact that the destructive rays (wave lengths below 290 my-my) form only one per cent of the total intensity of the spectrum.** The consequence is that the lamp can be handled with great safety; even exposures of over 30 minutes will not cause a burn of the skin. There is only one way of producing an erythema in a short time, namely by using a tube and pressing it tightly on the skin so that no air can circulate (one case observed). More important is the possibility of radiating mucous membranes; with the help of special applicators cavities in the body (mouth, pharynx, vagina, cervix) may easily be treated, which heretofore was a very delicate task.

If we compare the total intensity of the ultra-violet part of the spectrum delivered by this new lamp, with that emitted by other lamps, it must be said that the latter are much more intensive and therefore allow only a short exposure. By no means do we want to go on record as stating this lamp is the only type of artificial light to be recommended, but we feel that for certain purposes this carbon light has its advantages; in other words there is an indication for the use of the one or the other type of light.

As to our clinical report we have given so far nearly seven hundred treatments; never have we seen any bad reaction, and in a good number of our patients we observe encouraging results.

†my-my=106 mm.

*We are indebted to the American Kreuger and Toll Corporation, New York, for putting this lamp at our disposal.

**Report of the Bureau of Standards, Washington D. C.

In the following we will give a review of the conditions treated by this lamp with the dosage worked out and the results obtained. (See Table 1.)

RICKETS

It is well known that this disease responds very favorably to ultra-violet treatments; exposures of the whole body are advisable starting with 10 minutes every day in children under two years, with 15 to 20 minutes in older children. To shorten the total time of treatment it is possible to feed eosin* (0.1 gr. per day) in the milk which will sensitize the patient considerably. There are no bad effects whatsoever after this procedure.

TUBERCULOSIS

The most favorable condition is the tuberculous gland in a child, while we find that in adults X-ray treatments are to be preferred. The dose is 10 minutes to start with, increasing up to 25 minutes every second day. The number of exposures required varies a good deal with the type of the case and the extent of the lesion.

In tuberculosis of the larynx we did not have much success; however, it must be stated that only two cases were treated. Doses of 15 to 25 minutes seem to be safe, given every third day with the special larynx applicator.

Several cases of surgical tuberculosis (lesions in the hip joint and the elbow) showed some improvement. The dose is the same as for tuberculous glands.

PELVIC INFLAMMATORY DISEASE

This represents the largest group of our patients including endocervicitis, leukorrhea, parametritis, and similar conditions. There is no doubt that good results can be obtained in most of these cases, provided that a sufficient number of treatments is given. We agree here with Colombino* and recommend doses of 20 to 30 minutes every second day, giving as much as twenty to thirty exposures, sometimes even more, and bring the total time of treatment up to about six hundred minutes.

SLOW HEALING WOUNDS

Here is a very grateful object for ultra-violet radiation; we could convince ourselves that daily doses of 5 to 10 minutes were of great benefit.

*Gassul, R.: Strahlentherapie, Vol. XV, 2, 1171, 1920.

**Report from the gynaecological clinic of the University in Milano, Italy.

SKIN DISEASES

Tinea, and eczema, are somewhat improved by prolonged treatment in doses of 10 minutes every day; chiefly old cases who are saturated with X-rays seem to clear up at least temporarily. We observed one extremely severe case of psoriasis, under treatment with X-rays for several years, with patches over practically the whole body. To our surprise a few exposures with the lamp improved the patient's skin condition remarkably.

VARIA

We have tried the treatment with the lamp in cases of rhinitis, hay fever, otosclerosis, osteomyelitis, and pyorrhea, but not a sufficient number of cases has been treated to permit a final judgment.

NEW CASES

Ununited fractures* showing no callous formation for at least eight weeks are benefited by ten to twenty treatments of 20 to 30 minutes each in combination with one or two X-ray exposures. Amelioration of the pain in cases of compound fractures may also be secured with the same procedure.

Fibrosis in the muscles of the thigh as a result of heavy doses of X-ray therapy in a case of sarcoma after excision, causing severe pain, has been improved considerably. The pain subsided, the muscles softened, and the patient can now use his leg freely. We suggest ten to fifteen treatments, 15 to 20 minutes each, in similar conditions. It may be added that in cases of X-ray burns the ultra-violet radiation is the only remedy that promises good results without danger to the affected tissue if properly handled.

LITERATURE

1. Landeker, A: "Erfolge der Strahlentherapie in der Behandlung entzuendlicher Frauenkrankheiten." Strahlentherapie. Vol. XV, 2 p. 224, 1923.
2. Jonas, F.: "Neue Wege der Licht behandlung in der Gynaekologie." The same journal, page 237.

TABLE 1.

Diagnosis	Number of cases	Improved	No change
Rickets	5	5	
Tuberculous glands	9	8	1
Tuberculosis of larynx	2		2
Surgical tuberculosis	3	3	
Pelvic Inflammatory disease	18	16	2
Slow healing wounds	4	3	1
Tinea	2	1	1
Eczema	4	2	2
Psoriasis	1	1	
Rhinitis	6	3	3
Hay Fever	1		1
Otosclerosis	1	1	
Osteomyelitis	1		1
Pyorrhea	2	1	1
X-ray fibrosis	1		1
Ununited fractures	2	2	
Total	62	46	16

*Pohle, E. A.: The effect of X-rays on the callus formation in ununited fractures. Radiology 1925. (In press.)

HISTORICAL SKETCHES OF MEDICAL PROGRESS

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INTRODUCTION

This series of articles comprise the notes used in a class in history given to adults in a night school this past winter. As originally given they were elaborated and given in a still more popular style.

Because of the unusual nature of the material it is thought they may interest other physicians and possibly furnish some material for popular talks.

Inasmuch as publication was not contemplated an accurate notation of references was not made, but the material from which they were gathered is contained in the following works:

EARLY LIFE IN EUROPE

"The New Stone Age in Europe," by Tyler; "Europe, 1450-1789," by Turner; "The Inquisition," by Hoffman-Nickerson;, and "An Introduction to Economic History," by N. S. B. Gras.

CRUELTY

"The Fruit of the Family Tree," by Wiggans; "History of European Morals," by Lecky; "Trial by Ordeal, etc." Encyclo. Brittanica, and "Human Sexuality," by Parks.

COMPRACHICOS

Item by Frederick Haskin in Flint Journal.

HISTORY OF DISEASES

"Paleopathology of Old Egypt," by Ruffer-Moody; "Practice of Medicine," by Osler; "Epidemiology and Public Health," by Vaughan. (The last is a veritable mine of information and from this is obtained practically all the material here used on the great plagues.) One quotation from Woods Hutchison.

SCHOOLS

"History of Modern Elementary Education," by Parker.

ETHICS OF CHRISTIANITY

"History as Past Ethics," by Myers.

SCIENCES AND THEIR DEVELOPMENT

"Discovery," by Sir Richard Gregory.

"THOSE GOOD OLD TIMES," AS SEEN BY A PHYSICIAN

PRIMITIVE LIFE

People are ever longing for the good old times. Pessimists are constantly stating that the people are in a bad way; there is so much hardship and so much suffering; the civilized world is going to the dogs and happiness is vanishing. It is even argued that if we could return to the savage state we would be happier.

It is perfectly safe to say that those who feel this way do not know what the good old times really were like, nor do they know the squalor, filth and hardships of the savage state.

Ordinary histories treat of big men and big things leaving the rest to be dug out and pieced together by those who want the whole picture.

We will discuss the little things and the common people of the past showing life as it was for the masses of men, not the gilded, glorified leaders. And to make it as personal as possible we will deal with our own European ancestors very largely, our own flesh and blood.

Everywhere primitive men were hunters, fishers and gatherers of fruits, roots, berries, seeds as they found them growing. They had no store-houses, no elaborate homes and therefore had not come to live in symbiosis with rats and mice. They were wanderers, following food and water.

For water they had no wells, but used springs, rivers and lakes and had to live near them. They generally were not woods dwellers, but lived on the great plains of Asia and Europe and along its river banks and shores. The woods were unconquerable until men invented the metal ax.

The natural purification of the rivers and lakes was sufficient to prevent the water borne diseases.

As for their cleanliness, it was accidental only. They would dispose of their garbage by the "leave it lay" process, their animal bones would accumulate about the cave mouth in great quantities. At one such pile in France the bones of 3,000 horses used for food has been found. Along the shores they piled great shell heaps from their sea foods. This refuse no doubt was more smelly than dangerous. No doubt they did attract jackals and wolves, leading to a friendship growing into man's first attempt at domestication of a wild animal, the dog.

The food was poorly prepared and gritty, so that men of these times wore their teeth down to the jaws if they lived to middle age.

Their clothing was of skins when they used any at all and as it was unwashable, it became dirty and vermin infested.

Death was due to injuries in hunt or in battle. Often primitive men kill those feeble with age or illness without waiting for natural death. Nature's scavenger system is so perfect that there are no natural deaths among animals, weakness leading to an early end. Early men devoid of sympathy for the sick or infirm had little occasion to be burdened with them.

During the time men were developing they were carrying up with themselves the diseases which they had in common with other animals. These adapted themselves to the changes made with the progress of their hosts.

After the real primitive times there developed another type of career. The wandering hunters began to breed and grow the animals off which they lived, thus taking less chance with their food supply.

These domesticated animals furnished skins for clothing and shelter tents, meat and milk for food, dung for fuel and some of them were ridden for transportation. Such are the Mongols of today and a million other past days.

They too, followed their food supply, but they were a fierce, unkindly lot, and had to protect their animals so they lived in larger groups and made temporary settlements. The women who gathered the seeds and herbs took a cue from the men who had hunted, but now herded their flocks, and they planted and grew their plant foods.

Then a great change came, this simple hoe-culture was hooked up with the animal raising, the men and the women pooled their arts by using the domestic animals for the heavy work of cultivating the soil. This made possible a great agriculture.

The possibility of growing grain gave an increase of food per acre that nature never had. Denser populations were possible; the ease of storing it made wealth feasible; the comparative ease of transporting it made long journeys practicable. The ease with which it could be transported, measured, stored, valued, etc., made it become a medium of trade second only to the metals.

All these possibilities led to commerce, war, nations, and taxes. Grain and animals were given to a stronger fighter for his protection or for permission to live nearby and cultivate land from which he would otherwise be driven. Such tributes were the first taxes.

With agriculture came the fixation of the people in villages. There was more to protect and men united in communities for defense. Villages had to be near fields always. As water was not always available, pits were dug to catch rain water or shallow wells to get ground water. These surface water supplies slew their thousands—for they would be polluted too much for the natural cleansing processes.

In fact, every advance man made led to new and serious troubles. Using grain, he had to build store-houses, and granaries led to that close attachment of rats and mice to men which is so universal and at times so deadly.

With the building of houses as fixed abodes came fleas, flies, bed-bugs, cockroaches, and home-loving mosquitoes to live with man and probably every one of which is responsible for giving him disease.

With the manufacture and use of woolen clothing the human louse became a close associate of men and in return for a nesting place killed millions with his poison typhus bite.

To offset these disadvantages men had to learn new protective habits by the bitter experience of disease and death.

As cave dwellers they had learned how to use fire and render safer their noxious meats by roasting. This sterilizing process they extended to allmost all foods.

The herders learned to use milk wram from their animals or made into cheese or butter whose decomposition is seldom poisonous. They also learned that stale milk was often dangerous, but that sour milk was safe and so developed their special

brands which are still used as Matzoon, Keffir, Koumiss, clabbered milk, etc.

In deserts and plains where drinking was from pools and water carried in skins easily polluted, they learned to drink boiled water in the form of tea and coffee, just as they do now.

In settled communities, where fields, and not water supplies located them, they circumvented the dangers of their shallow wells by using fermented plant juices as wines and beers as also is done today.

Even up to 40 years ago food poisoning was very common and it was a constant care that led to preservation of perishable foods by smoking, drying, pickling, etc. Learning this by such slow cut and try methods cost millions of lives.

To get rid of garbage and refuse the villages deposited such material on the coast for the tides to carry away, in running rivers or in lakes to be diluted and destroyed and on their fields. In cities where such means were not at hand it was thrown into the streets for the dogs to pick at and the sun to burn or the rains carry away.

Human excreta, of all refuse the most dangerous to man, was disposed of in the same death-dealing manner.

In spite of what experience had taught, diseases were common and local epidemics would devastate villages many times.

In their ignorance as to the cause of these calamities, people would conduct ceremonies which would aim at propitiating a supposed angry God. The great Passion Play of Oberammergau is a survival of a promise made in the fifteenth century to conduct such a ceremony if delivered from smallpox which threatened.

With the introduction of beasts of burden and seaworthy ships, commerce was established with its great trade routes by land and sea, its great market cities and its great pandemics of disease. These trade routes connected all parts of the civilized world with a great network of highways. The habits of the people invited diseases of all kinds and their ignorance deprived them of adequate defense against the large number of contagions carried to them.

Andrew D. White has said that the most striking thing in ancient history is the continual occurrences of pandemic pestilences.

The comparatively large cities were the centers of dissemination and when struck the inhabitants, who could, scattered in the country seeking safety in isolation. Boccacio's Tales were related by such a group.

Many of these plagues cannot be identified, but a few can, and among them are smallpox, black-death, putrid sore throat (diphtheria), cholera, dysentery, typhus fever and pneumonia.

Of these great historical diseases we will talk at length later.

(To be Continued.)

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MICHIGAN DEPARTMENT OF HEALTH

REPORT ON MIDWIFE SURVEY

Prior to July, 1922, no information or statistics in regard to the midwife situation in Michigan had been assembled. It was known, however, from the birth reports received in the Bureau of Vital Statistics signed by midwives, that many midwives, at least so-called, were operating in the state. To determine the exact situation, the Bureau of Child Hygiene and Public Health Nursing began, in 1922, a midwife survey.

Michigan has no law requiring the registration or licensing of midwives. The legal status of the midwife is established by the fact that she is required by law to report births she attends and to use prophylaxis in the eyes of the new born infants.

TABULATION OF BIRTHS

The first step in gathering midwife data was tabulating the information given on the birth certificates. Since this preliminary work was begun in the fall of 1922, tabulation was made of the births reported in 1921. The results follow:

Year 1921	No.	Per cent
Total births attended by physicians	87,742	91.36
Total births attended by midwives	6,632	6.9
Total births attended by parents	1,413	1.47
Total births attended by others	248	.25
Total births in Michigan	96,035	100

Births reported by midwives in 1922, 1923 and 1924 were tabulated with the following results:

	1922	1923	1924
Total number births in Michigan	90,042	92,957	98,187
Total number births reported by midwives	5,726	4,942	4,464
Percentage of births attended by midwives	6.3	5.3	4.4
Total number midwives reporting births	1,301	1,113	1,109

The tabulation showed that a large number of confinements were cared for by individuals who signed as midwives.

After determining from the birth reports how many midwives there were in the state and where they were working, other questions presented themselves ,namely:

1. What type of women were operating as midwives?
2. What was their training?
3. What was the relation of the midwife to the maternal mortality in the state?
4. What was the relation of the midwife to the infant mortality in the state?

To answer these questions, it was decided to conduct a field survey.

PLAN OF SURVEY

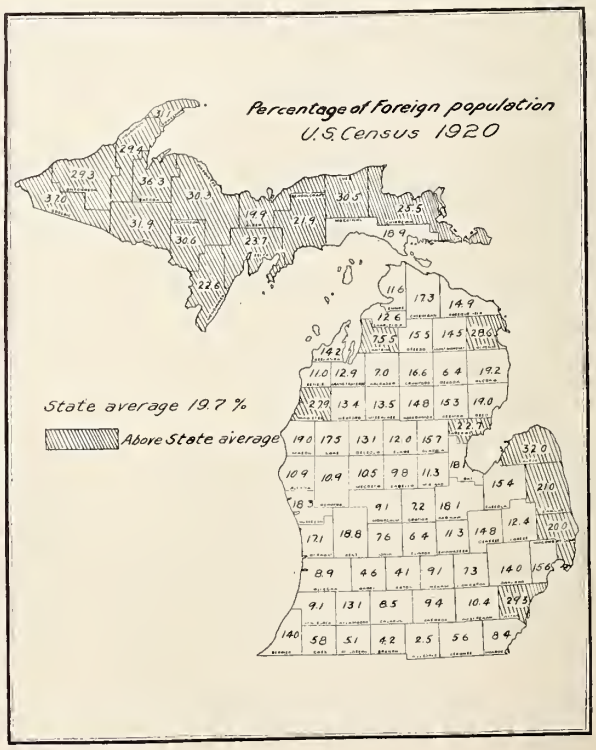
A nurse who had had experience in investigation was placed in the field in the autumn of 1923. She made personal visits to the midwives who had reported births. The work was done county by county and covered the entire 83 counties of the state. The survey was completed January 1, 1925. The total number of midwives interviewed was 1,364.

Half of the midwives were found in 19 of the northernmost counties, including all of the Upper Peninsula and four counties of the lower peninsula, namely, Emmet, Charlevoix, Cheboygan and Presque Isle counties. The southernmost counties, with the exception of Jackson and Wayne, showed a midwife attendance below the average for the state.

The survey showed higher percentages of midwife attendance in the sparsely settled areas of the state, and in counties having a high percentage of foreign born populations of certain nationalities. The foreign midwives were found in mining and agricultural as well as urban communities.

NATIONALITY OF MIDWIVES

Almost half of the midwives were Amer-



ican born. These women live very largely in the cut-over lands and sparsely settled regions of the northern part of the lower peninsula. They are not professional midwives in the old world sense, but are rather neighbors and friends of those needing obstetrical care, and they frequently give care gratuitously. They are often the leading women in the community and would prefer to have a physician called when possible.

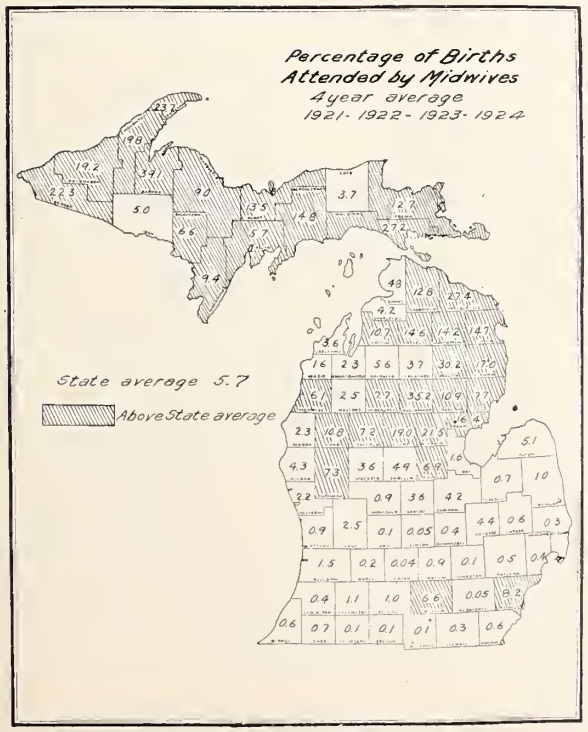
	Per cent
American midwives totaled	40.6
Finnish midwives totaled	18.2
Polish midwives totaled	12.2
Miscellaneous nationalities	29.0

Patronage of midwives is an old world custom, consequently the demand for midwife service among certain un-Americanized groups is still active. This is particularly true of the Finnish and Polish populations. The foreign born midwife is the professional midwife and she was found in the larger cities and towns and in the mining districts. She commercializes her work and expects and charges a fee.

FEES CHARGED

The following table shows that 57.7 per cent of the midwives in Michigan charge a fee and consequently can be listed as practicing midwifery as a business and for remuneration. The 30 per cent who do not charge for their services are as clearly friends and neighbors.

	Per cent
Midwives charging no fee totaled	30.0
Midwives charging no fee but accepting what is given	12.3
Midwives charging $1 to $5	16.8
Midwives charging $5 to $10	18.4
Midwives charging $10 to $15	7.5
Midwives charging $15 to $20	3.4
Midwives charging $20 to $25	3.4
Midwives charging $25 to $30	8.2



TRAINING OF MIDWIVES

Less than 10 per cent of the midwives operating in the state had diplomas.

	No.	Per cent
Midwives having diplomas	132	9.8
Midwives having no professional training	1,167	86.4
Midwives having irregular training (partial midwife training, nurse's training, etc.)	52	3.8
Total midwives interviewed	1,364	100.0

CHARACTER AND CLEANLINESS OF MIDWIVES

The field nurse making the survey inquired locally as to the reported character of the midwives. While too much credence cannot, of course, be placed in these reports, they are at least an indication.

The degree of cleanliness was judged by the nurse.

	Per cent
Number midwives reported as having bad character	1.3
Number midwives dirty in house and person	8.7
Number midwives clean in house and person	91.3

Some of the midwives reported as having a bad character had the local reputation of being abortionists. Some were suspected of being boot-leggers. No definite proof was received of either charge.

AMOUNT OF CARE GIVEN BY MIDWIVES

	Per cent
Confinement care only	9.1
Confinement and 5 to 10 days' nursing care	86.3
Nursing care only (doctor for confinement)	4.6

EQUIPMENT OF MIDWIVES

Less than 15 per cent of the midwives were equipped to do midwifery.

The percentage of midwives having no equipment, 85.6 per cent, tallies with that having no training, 86.4 per cent.

	Per cent
Midwives having no bag or equipment	85.6
Midwives having bag and equipment as follows:	14.4

Nail brush	Nail cleaner
Soft soap	Vaseline
Lysol	Boric acid powder
Silver nitrate	Blunt scissors
Tape	Sterile absorbent cotton
Sterile gauze	

RELATION OF MIDWIFE ATTENDANCE TO INFANT AND MATERNAL MORTALITY RATES

The counties with a persistently high infant mortality rate have also had a persistently high midwife attendance percentage.

Certain counties show parallel high maternal death rates and high midwife attendance. This is particularly true in counties showing a high percentage of foreign born who employ midwives. The relation of the midwife to maternal mortality rates is not as constant as might be expected.

MIDWIFE ATTENDANCE DECREASING

Attention should be called to the apparent lessening of midwife attendance. Two thousand more births were reported in 1924 than in 1921, yet the percentage of midwife attendance dropped from 6.9 per

cent in 1921, to 4.4 per cent in 1924, a lowering of 2.5 per cent. In 1924 midwives reported 2,168 less births than in 1921. Whether this has any direct connection with the field investigation it is impossible to judge; but there is doubtless a relation.

SECURING BETTER LYING-IN CARE

The survey shows that improvement in lying-in care for those who patronize midwives must be approached from several angles:

1. Education of foreign groups to employ physicians and to go to maternity hospitals where such service is available. Elimination of the unfit midwife from the group that will still exist in answer to the old world demand.

2. Education of what might be called the non-professional group of midwives, the friends and neighbors who assist at childbirth, in the importance of securing a competent physician for confinement. Instruction in prenatal, infant, and nursing care, with emphasis on the recognition of danger signals and the necessity of desisting from meddlesome interference.

One phase of the educational work carried on by the department includes classes for mothers. These are taught by a unit consisting of a physician and a nurse, the latter being the nurse who conducted the midwife survey. In every community visited, midwives are invited to attend the classes. While this is, of course, in no sense a course in midwifery, and it is made clear to the women that it is not, it is thought that the instruction may be of some benefit. The emphasis is placed on the care of the baby and what must not be done in the way of obstetrical care.

SUMMARY

1. Midwives exist in Michigan.
2. There is a relation between midwife attendance and infant mortality rates.
3. There is a lesser relation between midwife attendance and maternal mortality rates.
4. Foreign midwives operate among their own groups. Midwives having diplomas are mostly foreign born.
5. American born midwives are largely untrained, give service gratuitously, and are of the friend and neighbor type. They are found in sparsely settled communities where physicians are few or not called in for economic reasons.
6. The problem is to substitute better obstetrical care for an indifferent and inferior type of care.—B. M. H.

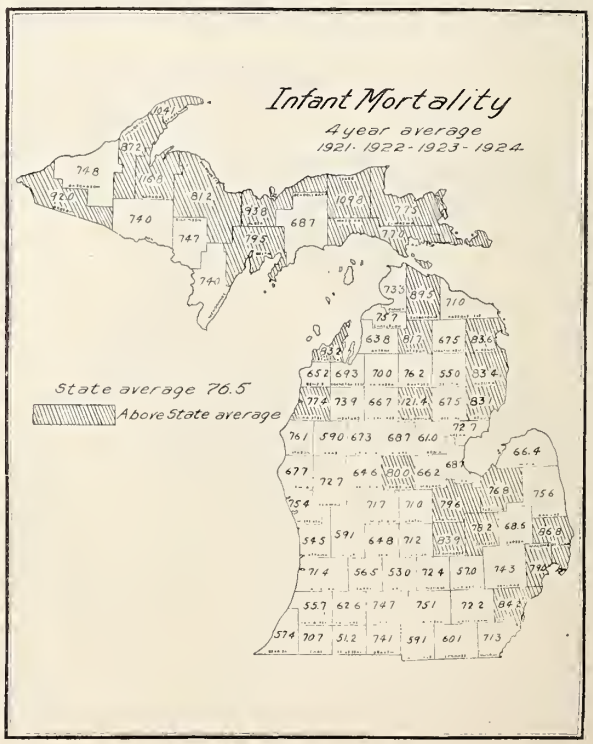
DEATHS FROM WHOOPING COUGH IN MICHIGAN

While this article does not present any particularly new features in regard to whooping cough, it confirms some of the already recognized facts and shows just where Michigan stands when compared with the registration area of the United States.

The average specific death rate from whooping cough for the past fourteen years in Michigan is 8.9 per 100,000 population or 1.2 less than the average rate for the registration area for the United States for the same period.

In 1918 there were 496 deaths from whooping cough in Michigan and in 1919 this was reduced to 172, a decrease of 324 deaths. As in most epidemic diseases, there are definite periods of high incidence due to the available non-immune material, and it is probable that this marked decrease in 1919 may be attributed in part to the fact that there were 7,199 less births in 1919 than in 1918, equivalent to a decrease of 8 per cent. This means that there was a reduction of susceptible material of more than 7,000 children. There are two outstanding reasons for this great loss of susceptible material. The first and probably the most important was the exceedingly high fatality rate among pregnant women from influenza during the epidemic of 1918 and the second was the loss due to the fact that a large number of married men were in military service during 1917, 1918, and 1919.

To understand what the loss of this susceptible material means, we must consider



the fact that 58 per cent of all of the fatalities from whooping cough are in children under one year of age and that 95 per cent are in children under five years of age. It is interesting to note that 53 per cent of these deaths were females, which is in inverse ratio to the ratio of male to female births, which for the past three hundred years or more has averaged about 107 to 100.

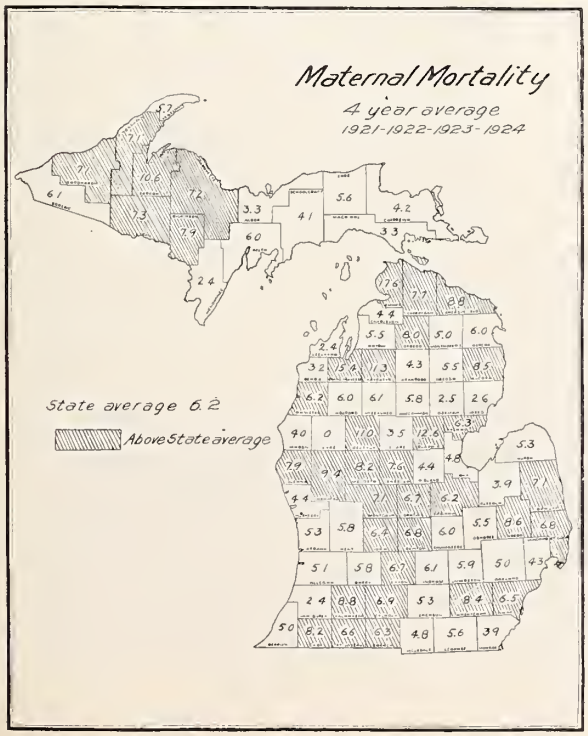
The study of the seasonal distribution of deaths from this disease for a period of several years shows that there is no season that does not show some deaths, but while this does not persist through the series, February and August are the high months in most cases.

It is difficult to make the average parent realize that whooping cough is a dangerous disease of high fatality, but the only hope for a definite reduction seems to be in getting over to parents that they must guard their children against infection and if the children are so unfortunate as to acquire the disease, they should be put under proper medical care and the instruction of their physician followed.

Below will be found a table showing the number of deaths from whooping cough each year in Michigan for the past twenty years:

1905	131	1915	236
1906	469	1916	228
1907	223	1917	360
1908	305	1918	496
1909	217	1919	172
1910	318	1920	511
1911	254	1921	316
1912	252	1922	232
1913	292	1923	323
1914	304	1924	169

—S. T. F.



PREVALENCE OF DISEASES

MAY REPORT

Cases Reported

	April 1925	May 1925	May 1924	Average for 5 yrs
Pneumonia	678	528	443	622
Tuberculosis	668	524	609	626
Typhoid Fever	38	33	53	70
Diphtheria	307	239	467	553
Whooping Cough	636	759	298	594
Scarlet Fever	1,603	1,320	1,128	906
Measles	1,049	2,331	2,487	3,693
Smallpox	93	86	770	435
Meningitis	8	11	16	16
Poliomyelitis	4	6	0	1
Syphilis	1,362	1,180	980	680
Gonorrhea	773	884	717	699
Chancroid	6	2	16	2

CONDENSED MONTHLY REPORT

Lansing Laboratory, Michigan Department of Health, MAY, 1925

	+	—	+—	Total
Throat Swabs for Diphtheria				1394
Diagnosis	40	462		
Release	137	293		
Carrier	14	428		
Virulence Tests	13	7		
Throat Swabs for Hemolytic Streptococci				995
Diagnosis	117	378		
Carrier	40	460		
Throat Swabs for Vincent's	14	486		500
Syphilis				11621
Wassermann	970	4847	76	
Kahn	1115	4564	49	
Examination for Gonococci	159	1062		1221
B. Tuberculosis				556
Sputum	80	448		
Animal Inoculation	2	26		
Typhoid				100
Feces	5	38		
Blood Cultures	1	16		
Urine		1		
Widal	6	30	3	
Dysentery		43		43
Intestinal Parasites				27
Transudates and Exudates				261
Blood Examinations (not classified)				283
Urine Examinations (not classified)				399
Water and Sewage Examinations				465
Milk Examinations				74
Toxicological Examinations				8
Autogenous Vaccines				13
Supplementary Examinations				238
Unclassified Examinations (including Dick test surveys)				860
Total for the Month				19058
Cumulative Total (Fiscal year)				232645
Increase over this Month last year				704
Outfits mailed out				12271
Media Manufactured, c.c.				400150
Diphtheria Antitoxin distributed, units				17713000
Toxin Antitoxin distributed, c.c.				42440
Typhoid Vaccine distributed, c.c.				1608
Silver Nitrate Ampules distributed				1840
Examinations made by Houghton Laboratory				1447

Muskegon—Our Convention City for 1925

Annual Meeting, September 8, 9 and 10, 1925

Muskegon, with its neighboring and adjoining municipalities of Muskegon Heights and North Muskegon, is a community of 54,000 population, largest city on the east shore Lake Michigan, and the commercial capital of approximately 600 miles of coast line extending north from the Michigan-Indiana line to the Straits of Mackinac.

Primarily an industrial center, with 203 state-inspected industries employing more than 16,000 operatives, with an annual output of $90,00,000 manufactured product, Muskegon also is a port city, and the natural distributing center for the east coast of Lake Michigan, as well as the hub of one of the largest and most productive fruit-growing areas of the United States.

This city's trade area, supplied by its jobbers and retailers, includes a population of 159,901, with an annual consuming capacity of $43,-173,270, producing agricultural products valued at more than $31,000,000 and manufactured products valued at $130,222,750. The aggregate assessed valuation of the area is $154,264,000. Muskegon does a jobbing business in excess of $6,000,000 a year, exclusive of petroleum products. It is the Michigan distributing center of the Standard Oil Company, (Indiana), which has a tank car movement of from 50 to 60 cars a day.

Its industrial tonnage is the third largest of any city in Michigan. The annual outbound tonnage is 881,878 tons, while the inbound tonnage is 1,346,069 tons, a total of 2,227,947. This does not include the large amount of freight (pulpwood, agricultural products, etc.,) handled annually by tramp steamers and motor transport, and of which no records are kept. It is conservatively estimated that the total freight movement in and out of Muskegon during a 12-month period is approximately 2,500,000 tons.

Muskegon is the fastest growing city in the entire western half of Michigan, and the fourth most rapidly-growing center in the state. Its growth in population and in business from 1910 to 1920 furnished one of the amazements of the last federal census. During the 10-year period Muskegon county's population increased 53.7 per cent.

Among the chief factors in the growth of Muskegon are: (1) Its landlocked harbor, with more than 10 miles of dockage and water front facilities, most of which is served by rail, on which the federal government has spent $1,000,000, and on which it proposes to spend $1,114,000 additional within the next few years; (2) the diversification of its industry; (3) hydro-electric super-power with 250,000 K. W. capacity; (4) the character of its population, 815 per cent American descended from west of Europe stock, the Holland and Scandinavian elements predominating.

INDUSTRY

Muskegon ranks fourth among the cities of the state in the number of industrial employes and in wages paid. The industries employ more than 16,000 workers in normal times, whose annual wage aggregates $20,000,000. Labor conditions are ideal, both from the standpoint of employer and employe, and strikes virtually are unknown.

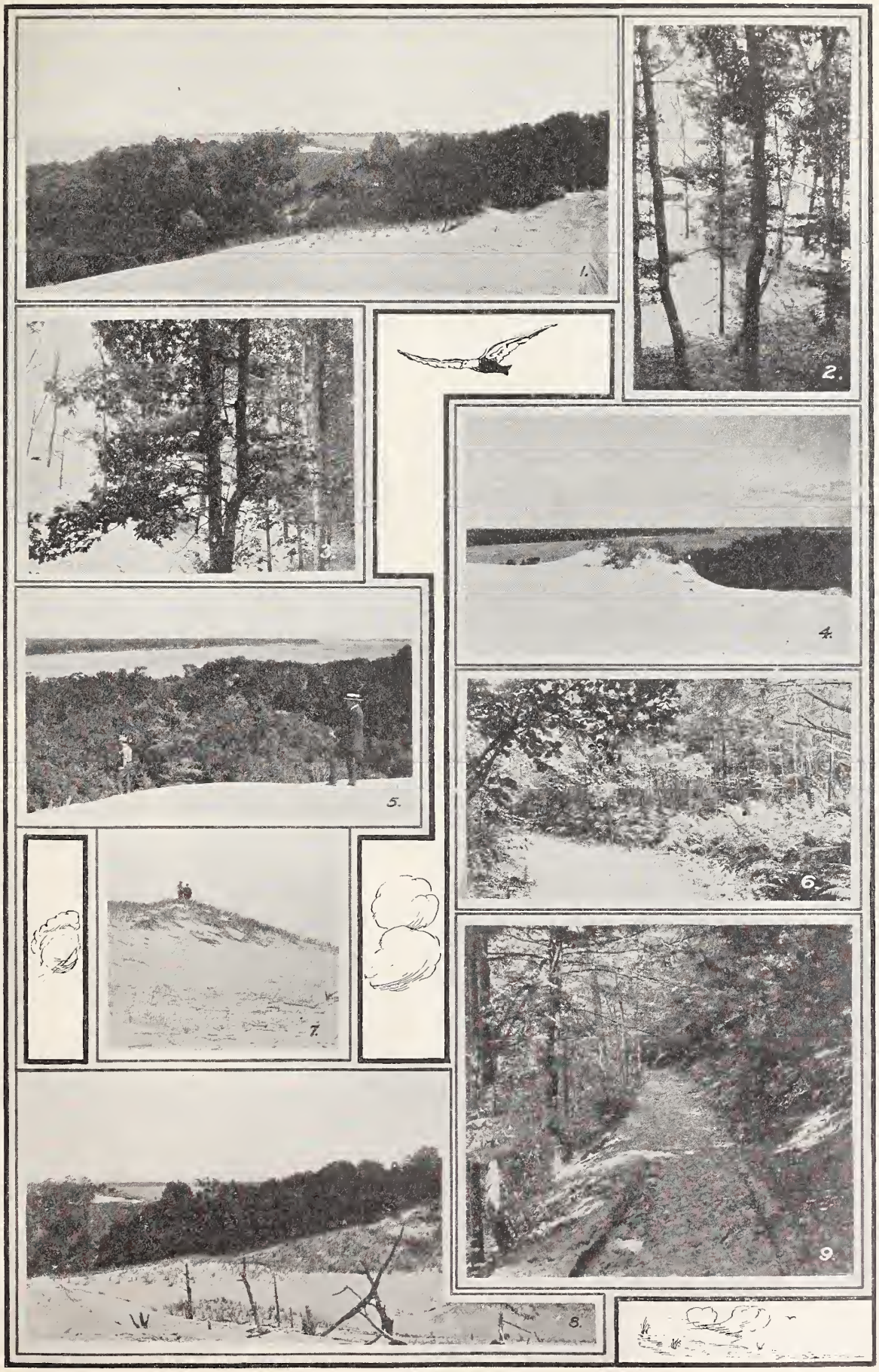
The industry is diversified, although the automotive predominates. This diversification has a tendency toward equalizing the labor demand during the year. When the automotive industry is at peak production, it draws employes from other lines. In slack seasons in the automotive plants the surplus workers are absorbed by other lines. As a result, there is little unemployment at any season. During winter months the peak production season in many plants, the concerns draw heavily for an augmented labor supply on rural communities in this district. Many farmers, their sons and their farm hands find profitable employment here at a time when they are not needed in agricultural pursuits.

Muskegon has some of the largest industrial establishments of their kind in the world.

This is the home of Continental Motors Corporation, world's largest gasoline motors manufacturers; the Brunswick-Balke-Collender Company, leading makers of billiard tables, bowling alleys and equipment, phonographs and records; Campbell-Wynant-Cannon Foundry Company, largest motor castings makers in the country; the Shaw-Walker Company, widely known filing device makers; the Piston Ring Company, world's largest piston ring manufacturers, the Stewart Hartshorn Company, the country's leading shade roller plant; the Alaska Refrigerator Company, second largest refrigerator manufacturers in the world, and the Amazon Knitting Company, one of the largest knit goods manufacturers in the United States, and several other concerns occupying a high place in their respective fields.

CIVIC GOVERNMENT

Muskegon has the commission-manager form of city government, consisting of seven commissioners, who are elected at large. This group



Dunes Scenes

elects a mayor from its own number, and also appoints the city manager.

SUMMER PLAYGROUND

Muskegon lies in the heart of Western Michigan's lovely and mysterious dune land. It is the open door to the summer land of the north country, with its lofty rolling hills; its virgin forests of hardwood and evergreen; its translucent cobalt lakes so crystal clear that fish may be seen playing at the bottom of twenty feet of water; its swift running trout streams; its tall pines and hemlocks, and all that goes to make for summer loveliness.

The dune land is Western Michigan's distinctive and unique gift to the nation.

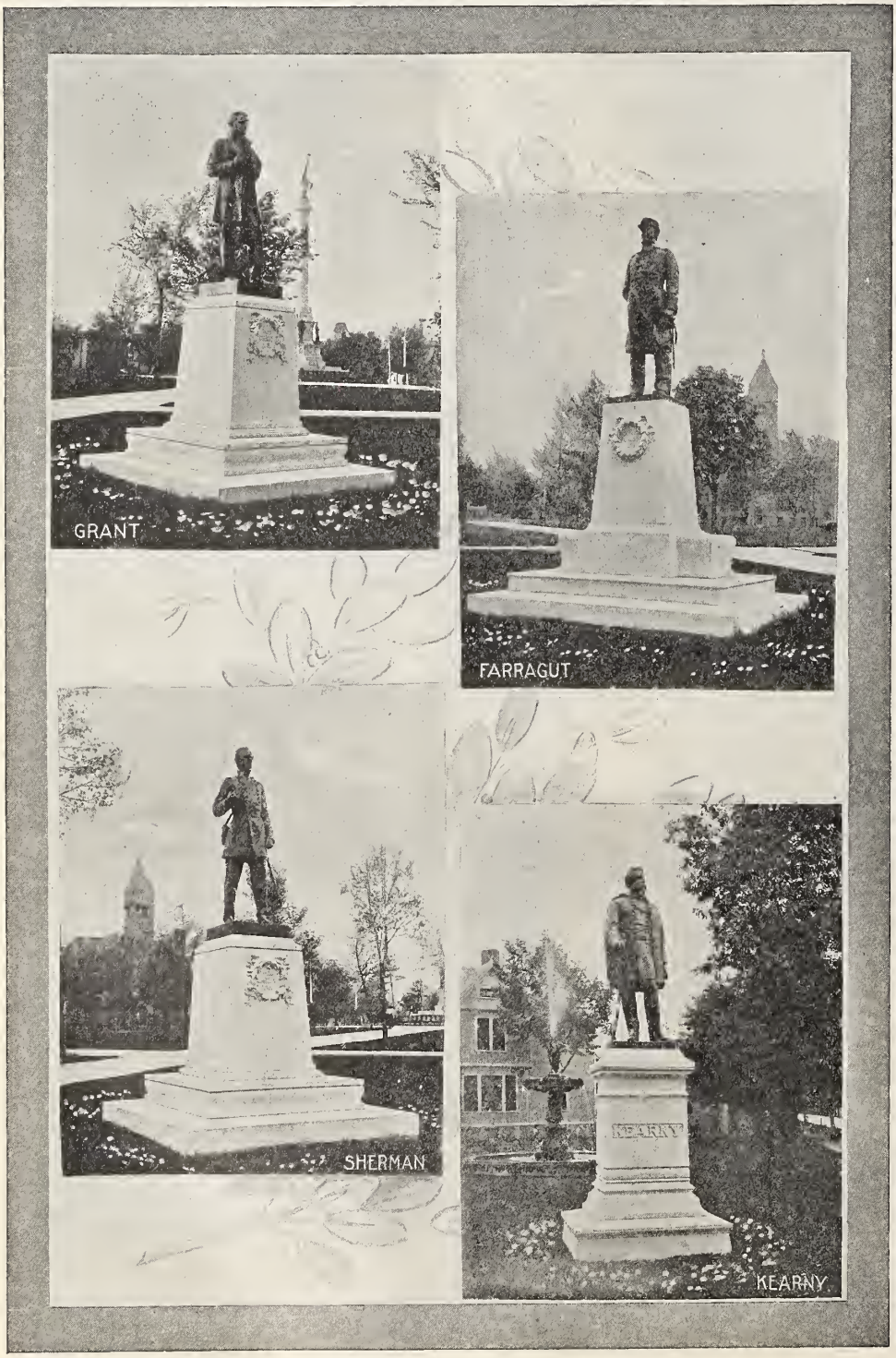
The dunes are post-glacial, and are undergoing slow continual changes in form and place —the loose sand responding lightly to the action of varying winds.

Weird, enchanting, mystic, with a marvelous play of bright colors and sunlight dazzling in scintillating sands laved by turquoise lakes —the dune land never fails to cast its spell on those who visit it.

In the region round about Muskegon these dunes reach their greatest height and perfection. Michigan's largest state park, the Muskegon State Park, with its 855 acres, lies just north of Muskegon on Lake Michigan and Muskegon Lake and it is said to be the outstanding example today in America of both the shifting and stabilized type of dunes.

TRANSPORTATION

Muskegon is only a six to seven hour drive from Chicago (190 miles); with paved roads (M11) all the way. It is one of the most readily accessible ports on the Great Lakes. The Goodrich Transit Company furnishes daily overnight boat service between Chicago and Muskegon. The largest and finest steamers plying on Lake Michigan operate between these two points. Two boat lines, the Wisconsin and Michigan Navigation Company and the Peninsula and Northern Naviga-

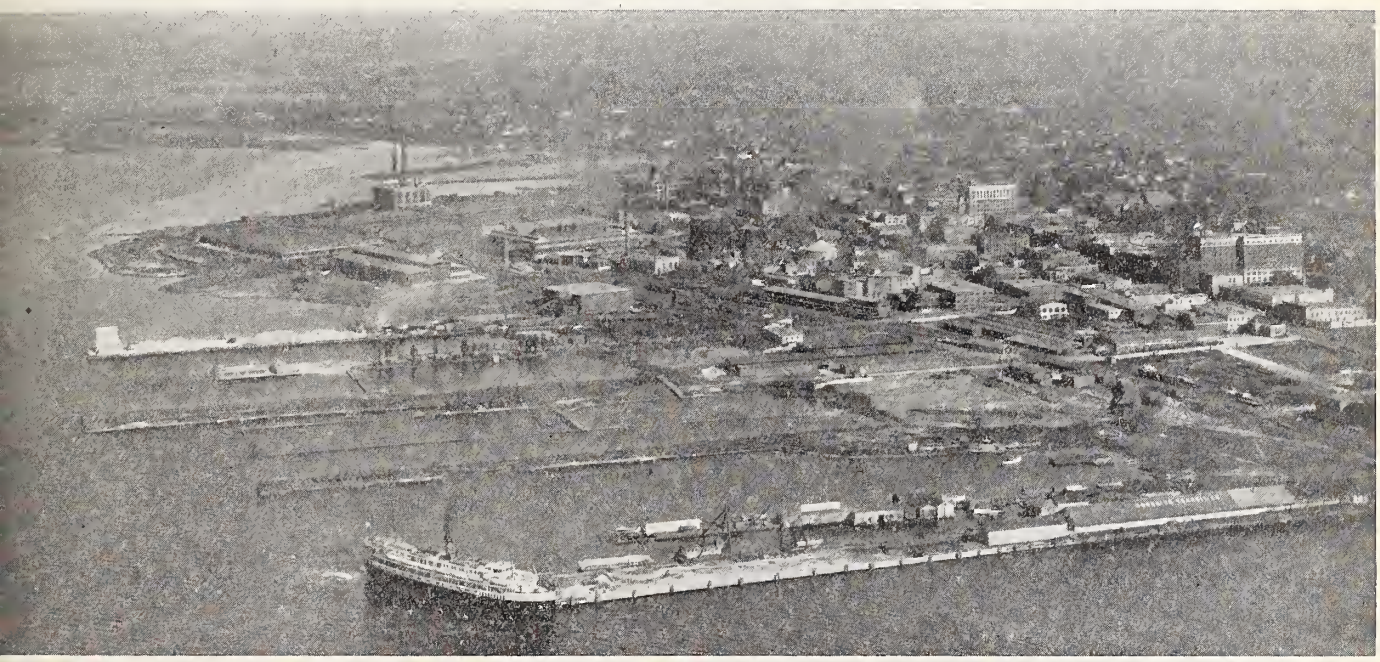


Statues in Hackley Park

tion Company, operate between Muskegon and Milwaukee, giving excellent service. In addition Muskegon is served by the Pere Marquette, Pennsylvania, and Grand Trunk Railways, and an electric interurban to Grand Rapids. Bus lines operate to Grand Rapids, Holland, Ludington and intermediate points.

By the close of the touring season the West Michigan Pike (M-11) will be paved all the way north from Chicago to Manistee, 100 miles north of Muskegon. North from this every foot of the road to Sault Ste. Marie is good gravel or bituminous macadam.

By rail, Muskegon is less than a day's trip from Kansas City, St. Louis, Cleveland, Cincinnati, Omaha and Detroit. Based on actual



Airplane View of Harbor

Airplane View of Business District

Muskegon Country Club

running time, it is 18 hours from Kansas City, 13 hours from St. Louis, 12 hours from Cleveland, 16 hours from Cincinnati, 20 hours from Omaha, and but five hours from Detroit.

LAKE MICHIGAN

A writer has said, "No great mind has ever flowered to its fullness that was insensible to the allurements of a large body of water." Lake Michigan, with its clean, white sandy beaches, free from stones and gravel, and receding gradually, is therefore one of Muskegon's chief attractions. It also has a remarkably equalizing effect on the climate.

Muskegon's summer climate is unsurpassed. Temperatures, taken over a period of ten years from United States weather bureau records, show that the city is ten degrees cooler in summer than points in Wisconsin in the same latitude. It is also several degrees cooler than Michigan's interior cities.

This remarkable climate, with its cool nights, makes possible restful sleep under warm blankets and is a sure cure for frazzled nerves.

ROADS

The West Michigan Pike (M-11), a portion of the Dixie Highway, is Michigan's finest paved road, and links up the present day with the history of nearly three centuries past. The Pike reaches from Chicago through Muskegon to the Straits of Mackinac, a distance of 463 miles. The road follows around the southern tip of Lake Michigan, winds through the Indiana dunes country, then cuts northward through the famous West Michigan fruit belt.

The longest continuously paved highway in the middle west connects Chicago, St. Louis and intermediary points with Muskegon. The West Michigan Pike is paved from Chicago to Muskegon and an all-paved way from St. Louis to Chicago permits tourists to travel 575 miles in comfort and safety. In addition, the Pike is paved 60 miles north of Muskegon and the program of construction for the next two years provides for additional paving to Traverse City, a point 165 miles north.

A constantly changing panorama of unsurpassed scenic beauty thrills the visitor from the moment he enters Michigan. The Pike winds around sand dunes, now close to Lake Michigan, again miles from the lake, but with

Hackley Park with Hackley School in Background

Interior Hackley Public Library

the lake visible from the white ribbon of concrete mounting over great hills. He sees not only the lake, but the bald sand dunes, great mounds of sand, constantly shifting; the wooded dunes, meadows, silvery lakes, rivers, enterprising industrial cities, busy villages.

Muskegon county has more than 200 miles of improved roads leading to lakes and other beauty spots of the district. In addition to the West Michigan Pike, two other state trunk line highways enter the city. Two paved routes lead to Grand Rapids, over one of which the tourist will ride over M-54 to Casnovia and M-46 directly into Muskegon. On the second, the tourist will drive over M-16 to Spring Lake, and the West Michigan Pike from Spring Lake to Muskegon. State Trunk Line M-24 runs to Big Rapids and points northeast. It is paved for a considerable distance out of Muskegon.

Boy, Page Mack Sennett

HISTORIC ASSOCIATIONS

Muskegon is rich in historic associations. Intrepid voyagers from the Old World journeyed along these primitive coasts centuries ago. Their footprints were soon washed away in the surf lines, but the romance of their trails still rests upon the sands that they traversed.

In years of obscure legend, birch-bark canoes were drawn out on the gleaming beach by red men who carried weapons of stone. They hunted and fought among the yellow hills. They saw them basking under summer suns, and swept by the furies of winter storms. From their tops they watched the dying glories of the afterglows in the western skies. They saw the great lake shimmer in still airs, and heard the pounding of remorseless waters in its sterner moods. They who carried the weapons of stone are gone, and time has hidden them in the silence of the past.

For centuries one of the principal villages of the Ottawa tribes was located here. Muskegon was the home of Pendalouan, the intrepid chief who practically exterminated the Fox tribe in the battle of Starved Rock. When afterward called to account by the French Governor-General of Canada for adopting the seven Fox who survived into his tribe, he threw his honors and medals into the river and defied the French. Imprisoned and conveyed in chains with another prisoner in a canoe with seven French soldiers, Pendalouan overturned the canoe, drowned his captors, invaded a settlement and forced the smith there to sever his chains, and returned to his tribe. The French did not dare to make a second attempt to take him. Pendalouan's fame has been somewhat dimmed by the feats of his more spectacular successor, Pontiac, but he remains one of the early heroic figures of the Old Northwest.

Bathing Scene

Here, too, Father Marquette stopped just three days before he died. Here LaSalle came, and on the forest-skirted shores of Muskegon Lake many a courier-du-bois camped. From here was shipped to ports in France a greater wealth in furs than ever the forests of Western Michigan produced in lumber, in spite of the fact that in a later day Muskegon, with its 47 sawmills, cut more board feet per year than had been produced by any other city in the country at that time. Here, too, is the last home and grave of Jonathan Walker, immortalized by Whittier in his poem, "The Man With the Branded Hand."

THE DUNE LAND

The dunes form one of the chief charms of this vacation country.

"The fixed dunes retain general forms, more or less stable, owing to the vegetation that has obtained a foothold upon them, but the wandering dunes move constantly," says Earl H. Reed in "The Dune Country." "The fine sand is wafted in shimmering veils across the smooth expanses, over the ridges to the lee slopes. It swirls in soft clouds from the wind-swept summits, and, in the course of time, whole forests are engulfed. After years of entombment, the dead trunks and branches occasionally reappear in the path of the destroyer, and bend back with gnarled arms in self-defense, seeming to challenge their flinty foe to further conflict."

Road Scene

A LAND OF SMALL LAKES

Lakes and streams dot the map of Muskegon county. In addition to Lake Michigan, which is but 20 minutes' trolley ride from the Muskegon business section, the city has Muskegon Lake, five miles long and from one to two miles wide, and around the southern shore of which the business section is built; Lake Harbor and Mona Lake, an arm of Lake Michigan, approximately four miles long, and Bear Lake, which is two miles long. White Lake, 18 miles north of Muskegon, on the West Michigan Pike, is four and one-half miles long and is one of the most noted of the state's resort centers. There are also scores of smaller lakes.

Masonic Temple

The many lakes and streams make Muskegon a resort of fishermen. Brook and rainbow trout, bass, pike, pickerel, muskellunge and smaller fish whose types are too numerous to mention, await the rod and fly. Nonresident anglers are required to obtain a license. Licenses may be obtained for $2 for small fish, or $5 for taking all varieties. They may be purchased from the state conservation department or its representaitves, from the county clerk, and from sporting goods stores. The trout season opens May 1 and closes September 1. The bass season opens June 16th and closes March 31st.

MILES OF BATHING BEACHES

Muskegon's miles of beaches, including five miles on Lake Michigan, provide the best bathing obtainable in the middle west. The Lake Michigan beach is of hard, white sand, and the slope is so gradual that the bather may wade

Postoffice

Sailing Scene

out 100 feet from shore in safety. Beaches of clean, white sand may also be found at other lakes. Bath houses and facilities are provided at beaches in the district.

HOTELS AND COTTAGES

Because of its excellent hotel facilities, Muskegon is a favorite night stop for tourists, motorists from Chicago being able to leave their homes during the mid-forenoon and arrive here in ample time for dinner. The Occidental hotel, a $1,500,000 institution that ranks as one of the finest in Michigan, is a favorite stopping place for tourists. The hotel has 320 rooms, 280 of them with private baths. The Muskegon, another first class hotel, has 80 rooms and a good dining room. Other hotels are The Park, The American, and The Federal.

MODEL TOURIST CAMP

A model tourist camp is maintained by the Chamber of Commerce just south of Muskegon Heights on the West Michigan Pike. The camp was rated by the Chicago Daily News as the best policed and maintained along the Upper Great Lakes last year. The place is lighted and well regulated, being in charge of a caretaker who provides for the comforts of guests and gives police protection. A building on the grounds contains an information bureau, rest room, public telephone, cook room equipped with stoves, lavatories and other conveniences. The camp is kept in a sanitary condition. It is beautifully situated in a grove adjoining the West Michigan Pike and within sight of Lake Mona. Within five minutes' walk of the camp is Recreation Park, located on Lake Mona, where a bath and boat house, a refreshment and grocery are located. A fee of 50 cents per car is charged each 24 hours.

GOLF AND TENNIS

Muskegon provides ample opportunity for the golf or tennis player to exercise his skill. The golf course and tennis courts at the Muskegon Country Club are among the finest in the country. Golf courses are found also at Lake Harbor, five miles south of Muskegon; White Lake and Spring Lake, the latter in Ottawa county, a short distance south.

The Muskegon Country Club is one of Muskegon's show places. It is situated within the city, unlike most institutions of its sort. The clubhouse is within 15 minutes' ride of the heart of the city, yet despite this fact, the surroundings are typically rural. The club property is located in the wooded dune land.

The 18-hole golf course of the Muskegon Country Club is pronounced by Donald Ross, eminent builder of courses, as destined to become the second best in the country. The course is approximately 6,500 yards long and lies among the sand dunes, which provide natural hazards. It approaches more closely the courses of Scotland than any other in America, Mr. Ross says. The turf is on sand, permitting perfect playing conditions at all times. No rain can stop play. The course is sufficiently difficult to make traps or bunkers unnecessary.

MUSKEGON STATE PARK

Muskegon State Park, an 855-acre tract of dune land, and described by experts as one of the finest parks in the country is situated within a 20-minute ride of downtown Muskegon. Here are located, side by side, the permanent and shifting types of dunes. In the wooded portion are 95 per cent of the species of plant life common to the temperate zone, while in the sandy areas are plants known only to desert regions. The park is to be developed as Michigan's finest recreational spot and the acreage is to be increased to about 1,000 acres through recent acquisition of additional dune land.

Occidental Hotel—Home of Chamber of Commerce

Surveys have been completed in the park for a paved highway, which is to be the most scenic spot in Western Michigan. The highway will link up with the Soldiers Memorial Highway, leading from the West Michigan Pike, a distance of four miles around the north side of Muskegon Lake. From there it will continue directly west into the sand dunes to the shore of Lake Michigan, following the shore, then in a gradual ascent by way of a series of horseshoe curves, will rise to an altitude of 150 feet above the level of Lake Michigan. Thence it will follow northward, winding around the sand dunes, in view of Lake Michigan, to Duck Lake, and north to White Lake.

CLUBS WILL WELCOME VISITORS

Muskegon offers the advantages of its clubs to the visitors. There are located here the Century Club, a popular organization, with a downtown clubhouse, and composed of most of the business men in the city; the Country Club, the Elks Club, Pythias, Knights of Columbus, the Moose, Eagles and Odd Fellows. Noon luncheon clubs include the Rotary, Kiwanis, Exchange, Lions and Quadrangle Clubs, the latter an organization for business and professional women.

SCHOOLS

Muskegon has one of the best public school systems in the United States. The liberality and public spirit of the people has been splendidly supplemented by the gifts of the late Charles H. Hackley. The Hackley Manual Training School has won a national reputation. Within a short time, erection of the Senior High school and Junior College building, to cost approximately $800,000, will begin. Six blocks of property are to be set apart as a high school and junior college campus. When completed, this campus, which already contains a magnificent high school building, and the training school building, will be valued at upwards of $5,000,000.

HACKLEY LIBRARY AND ART GALLERY

Two of the most striking bequests of the late Charles H. Hackley are the public library and art gallery bearing his name. Located but two blocks from the city's chief thoroughfare, these two buildings rank as among the finest in the country.

HOSPITALS

Muskegon has two modern and adequately equipped hospitals, Hackley Hospital, another institution founded by the late Mr. C. H. Hackley, and Mercy Hospital, conducted by the Sisters of Mercy.

Hackley has 112 beds, 18 in private rooms, 12 in semi-private rooms, 40 in wards, 20 in the children's department, eight in the isolation department, and 14 in the nursery department. The hospital employs seven graduate nurses and has 40 nurses in training. There are more than 30 other employes. Erection of a 50-bed addition to the hospital is contemplated.

Mercy Hospital has 100 beds, 36 private, 18 semi-private, and 46 in wards. It has 20 nurses in training, eight graduate nurses, and 17 other employes.

A CONVENTION CITY

The same ideal conditions that make Muskegon one of the country's leading tourist centers has brought it the distinction of being one of the chief convention cities in Michigan. Muskegon is well equipped to handle conventions. The city is easily reached, while the many bodies of water, the Country Club and other attractions provide ample opportunity for recreation. The city has four convention halls.

MUSKEGON COUNTY MEDICAL SOCIETY

The Muskegon Medical Society was organized November 11, 1892, with the following officers: Dr. W. N. Smart, President; Dr. C. P. Donelson, Vice-President; Dr. G. S. Williams, Secretary, and Dr. P. A. Quick, Treasurer, and the following members: Doctors Sigmund Bloch, A. B. Clement, Jas. M. Cook, Jennie M. Dobson, John F. Denslow, C. S. Fries, F. W. Garber, Jas. G. Jackson, Walter B. Morrison, P. W. Piersall, John P. Stoddard, John Vander Laan and O. C. Williams. Of the original members, Doctors Denslow, Garber, Quick, Stoddard and Vander Laan are still living in Muskegon and engaged in practice, with the exception of Dr. Stoddard, who is past 91 years of age and is retired. All of the others are deceased.

As several members of the profession did not join and as homeopaths were not accepted for membership, the society did not thrive, led a rather precarious existence, was undernourished and died when four or five years old.

The Physicians Protective Association was organized in 1900 and included in its membership practically all of the medical profession of the city. The Association had a double purpose, to improve its members in a scientific way and in a financial way. In a scientific way, by the presentation and thorough discussion of well prepared papers. In a financial way by listing the "dead beats" and adopting a uniform method of collecting slow accounts. The Association thrived, held many good and instructive meetings, prodded up the dead beats, and was active in many civic movements.

In 1904 the State Medical Society had let down the bars and accepted homeopaths to membership. Many of the members of The Physicians Protective Association saw the desirability of affiliation with the State Society,

and through it with the American Medical Association, and called a meeting for June 23rd, 1904, to be held at the residence of Dr. G. S. Williams. Those present at this meeting were Doctors Cavanaugh, Denslow, Garber, Hartman, Kniskern, Quick, A. A. Smith, Sullivan, Vander Laan, Williams and Wicks. Dr. Williams was elected president pro tem, and Dr. Kniskern, secretary pro tem. Dr. Dodge, Councillor of the Eleventh District, spoke on, "The Purposes and Methods of the County, State and National Societies." Following this talk, Doctors Denslow, Smith and Garber were appointed to draw up constitution and by-laws, and Doctors Vander Laan, Bloch and Campbell, with the president and secretary, were appointed to act as a board of censors on membership. At a meeting on July 8th, 1904, the Constitution and By-Laws were presented and adopted and the present Muskegon County Medical Society came into existence. One week later the following officers were elected; President, Dr. G. S. Williams; Vice-President, Dr. Sigmund Bloch; Secretary, Dr. E. L. Kniskern; Treasurer, Dr. Jacob Oosting; and the following were members: Doctors W. A. Campbell, R. G. Cavanaugh, V. A. Chapman, J. F. Denslow, J. A. Fleming, F. W. Garber, G. J. Hartman, H. C. Hubbard, Henry Hull, L. W. Keyes, R. G. Olson, P. A. Quick, A. A. Smith, C. F. Smith, P. J. Sullivan, John Vander Laan and O. C. Wicks. Four meetings were held in 1904. The fourth meeting was that of the Eleventh Councillor District, at which about fifty members and their guests were present. Papers were given by Doctors Conner of Detroit, and Barth of Grand Rapids, and Dr. B. D. Harrison spoke on "The Standards of Medical Education," and Dr. A. P. Biddle spoke on "Reciprocity in Medical Registration."

During 1905 Doctors O. F. Broman and J. H. Nicholson of Hart; J. D. Buskirk, W. L. Griffin and R. J. Davison of Shelby, and G. F. Lamb of Pentwater, all in Oceana County, became members and at the annual meeting the name of the Society was changed to the Muskegon-Oceana Counties Medical Society. Four meetings were held in 1905.

At a meeting, April 6, 1906 it was decided that meetings should be bi-weekly with the presentation of a paper and its discussion at each meeting. About this time there was much local talk about the State Tuberculosis Sanatorium being located in Muskegon, and this talk was reflected in the papers presented, many dealing with diseases of the chest, particularly pulmonary tuberculosis.

The District meeting was held here in 1907, and again in May of this year, and the State Society met in Muskegon in 1912.

With the organization of the Oceana County Medical Society in 1917 our members from there withdrew and this again became the Muskegon County Medical Society. Since its organization the Society has been active and its members have interested themselves in all legislative bills affecting the public health or the profession, and as early as 1907, took action towards discouraging contract practice by its members. The Society now has fifty-three active members and one honorary member, Dr. John P. Stoddard.

P. S. Wilson, Secretary.

HACKLEY HOSPITAL

Archibald Hadden, President; Archie McCrea, Vice-President; Edward B. Dana, Secretary; F. E. Hammond, Treasurer; W. W. Richards, Horace E. Rice, Walter F. Tunks, George VanderWerp, James L. Gillard.

EXECUTIVE OFFICERS

Superintendent—Miss Amy Beers.
Office Manager—Miss Lena Hansen.
Principal of School of Nursing—Miss Madeline Gray.
Instructor—Miss Adelaide Beers.
Night Supervisor—Miss Lois Bridges.
Surgical Supervisor—Miss Lucy Church.
Supervisor Private Pavilion and Children's Ward—Miss Eleanor Spellman.
Supervisor of Wards—Miss Jane Notley.
Supervisor of Obstetrical Dept.—Miss Grace Bode.
Dietitian—Miss Jean Ferguson.
Pathologist and Roentgenologist—Dr. Marie Keilin.
Technician—Miss Bessie Brough.
Interne—Dr. Carl Wilke.
Housekeeper—Mrs. Mary Moody.
Chief Engineer—Mr. Wm. Zeckzer.

STAFF ORGANIZATION

Chief of Staff—Dr. Frank W. Garber.
Chief Consultant in Medicine—Dr. J. Vander Laan.
Chief Consultant in Surgery—Dr. Geo. L. LeFevre.

DEPARTMENTS

Department Heads	Associated Heads
Medicine	
Dr. P. S. Wilson	Dr. S. G. Cohan
Dr. C. J. Durham	Dr. S. G. Cohan
Surgery	
Dr. R. A. Busard	Dr. H. E. Closz
Obstetrics	
Dr. G. J. Hartman	Dr. J. T. Cramer
Eye, Ear, Nose and Throat	
Dr. A. F. Harrington	Dr. E. L. Kniskern
	Dr. F. W. Hannum
	Dr. J. Bursma
Gynecology	
Dr. A. B. Poppen	Dr. S. A. Jackson
Pediatrics	
Dr. Lucy N. Eames	Dr. R. J. Harrington
Orthopedics	
Dr. F. B. Marshall	Dr. V. S. Laurin
Proctology	
Dr. C. A. Teifer	
Resident Pathologist and Roentgenologist	
Dr. Marie Keilin	

STAFF MEMBERS

Dr. C. J. Bloom
Dr. Wm. Chapin
Dr. S. G. Cohan
Dr. J. F. Denslow
Dr. A. B. Egan
Dr. F. W. Garber, Jr.
Dr. R. J. Harrington
Dr. S. A. Jackson
Dr. H. B. Loughery
Dr. C. B. Mandeville
Dr. R. L. Matteo
Dr. G. Pangrel
Dr. J. H. Pyle
Dr. P. J. Sullivan
Dr. W. C. Swartout
Dr. John Vander Laan
Dr. J. Bursma
Dr. H. F. Closz
Dr. C. M. Colignon
Dr. C. J. Durham
Dr. C. B. Fleischman
Dr. F. W. Hannum
Dr. G. J. Hartman
Dr. E. L. Kniskern
Dr. V. S. Laurin
Dr. F. B. Marshall
Dr. C. L. Oden
Dr. A. B. Poppen
Dr. P. A. Quick
Dr. A. A. Smith
Dr. C. A. Teifer
Dr. P. S. Wilson
Dr. R. C. Cavanaugh
Dr. J. F. Cramer
Dr. E. N. D'Alcorn
Dr. L. N. Eames
Dr. F. W. Garber, Sr.
Dr. A. F. Harrington
Dr. R. H. Holmes
Dr. O. M. LaCore
Dr. G. L. LeFevre
Dr. F. N. Morford
Dr. R. G. Olson
Dr. L. I. Powers
Dr. R. A. Risk
Dr. A. A. Spoor
Dr. E. S. Thornton

Hackley Hospital, the last of Chas. H. Hackley's great philanthropies, was established in 1902 and opened for patients in the autumn of 1904. At that time it represented the final word in small hospital construction and equipment. The generous endowment of its founder, together with the wise guidance of its trustees and officers, have enabled it to maintain the high standards which characterized its inception. The original cost of Hackley Hospital was $235,000. To this was added an endowment fund of $600,000 by Mr. and Mrs. Hackley, and one of $5,000 by Horatio N. Hovey. This liberal source of revenue has enabled the hospital to extend its usefulness in the community while expanding its capacity and adding such new equipment from time to time as the proper administration of a modern hospital demands. Recent replacements and new equipment have been made at a cost of many thousands of dollars. The hospital generates its own light. It has an up-to-date refrigerating plant. It has a fully equipped pathological laboratory with a full time pathologist. Its X-ray department is standard. The hospital is provided with sufficient radium to meet all ordinary needs. Since the hospital began operations it has added a children's department with sun rooms for both this and the isolation division.

The training of nurses has been one of the functions of the hospital from the beginning. It now has 148 graduates and 49 nurses in training. In 1917 a Nurses' Home was built at a cost of $75,000. This building is on the hospital ground adjacent to the hospital. These grounds cover four city blocks and provide ample space for many years of future expansion.

On the walls in the lobby of the hospital is a bronze tablet bearing this inscription: "For the relief and cure of the sick and suffering and for the promotion of medical science."

The medical profession of Muskegon was quick to recognize this dual function of Hack-

Entrance Driveway and Administration Building

ley Hospital and it may be truly said that this institution has served as a center for medical culture from its start. It's staff was early organized for co-operation and for medical and surgical progress. It very early established weekly staff meetings for the discussion of professional and institutional problems. It adopted rules which have compelled consultation in all serious cases and which have deferred operation on all but emergency cases until complete study has been made in each instance. These rules have been observed loyally and with benefit both to patient and attendant. Staff members have brought back to our Tuesday dinners gleanings from their visits to American and European medical centers and the whole fraternity has been enriched by these experiences. As a result of good team work Hackley Hospital was one of the first of the hundred bed hospitals (its capacity is now one hundred and fifteen beds) in Michigan to be placed on the accredited list of the American College of Surgeons.

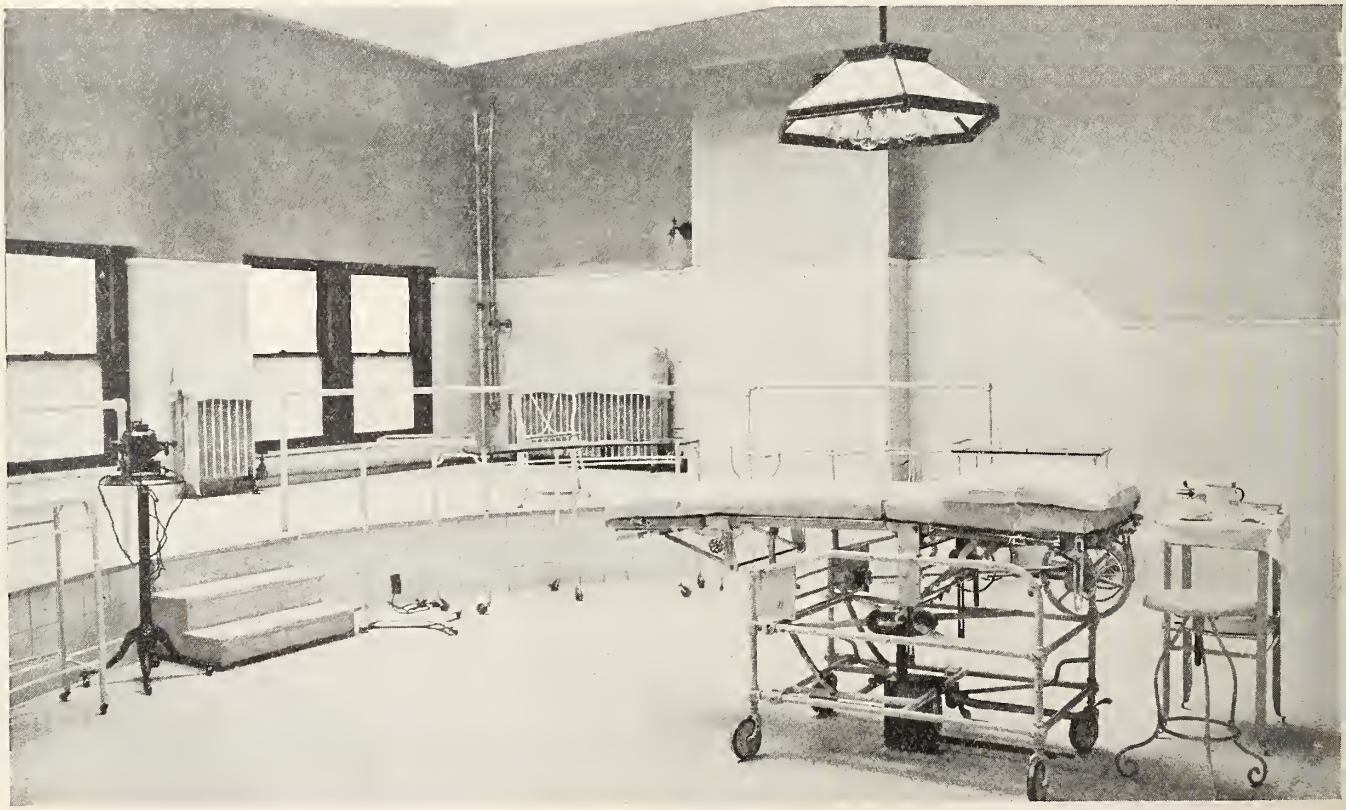
The following report shows in detail the work done in the hospital for the year ending April 30, 1925.

Patients in Hospital April 30, 1924—		
Male	32	
Female	44	
Infants	19	
Total		95
Patients admitted during the year—		
Male	705	
Female	1,016	
Total		1,721
Births		381
Total		2,197
Patients discharged during the year—		
Cured	919	
Improved	725	
Unimproved	32	
Total		1,676
Deaths	90	
Moribund—(died within 24 hours)	32	
Total		122
Infants discharged		341
Patients in Hospital April 30, 1925—		
Male	16	
Female	31	
Infants in hospital	11	
Total		58
Total number		2,197
Total days' treatment of patients		24,336
Highest number		95
Lowest number		46
Daily average		66.8
Number of patients operated upon		986
Number of operations		1,220
Free bed patients in hospital April 30, 1924		1
Free bed patients during year		69
Free bed patients discharged during year		69
Free bed patients in hospital April 30, 1925		1
Days free bed service		962
Work Done in Laboratory—		
Urinanalysis		3,298
Blood Counts		537
Coagulation		186
Widals		41
Wassermanns		8
Blood Sugar		51
Blood agglutination for transfusions		12
Blood Cultures		8
Blood Urea and Creatinin		4

Nurses' Home, Hackley Nurses' Training School

Blood Smears	7	Cultures	19
Vaccines	11	Spinal Fluid	5
Vaginal Smears	411	Stomach Analysis	8
Urethral Smears	5	Emesis	5
Smears	59	Feces	19
Throat Cultures	1,429	Metabolism Test	21

West Side View, Showing Service Building



Operating Room

Sputum	55
Tissue	48
Transudate and Exudate	9
Functional Test	26
Allergen Test	4
Milk	7
Miscellaneous	5
Total X-rays	874

MERCY HOSPITAL

Mercy Hospital of Muskegon, Michigan, was established March 12, 1903, when the L. G. Mason property on Jefferson street was purchased by the Sisters of Mercy of Grand Rapids for the purpose of opening a hospital. This property occupies an entire block of land and has a frontage of 350 feet on Jefferson street and a depth of 390 feet on Grand and Southern avenues. The altitude being the highest in this vicinity, the location is an exceedingly healthful one, as well as one of the most beautiful in the city. The hospital was opened on April 16th, 1903, with a capacity of twenty-five beds.

The building soon proved inadequate to the demands made for rooms and an addition was begun in July, 1904, and completed in February, 1905, increasing the number of beds to fifty. This addition relieved the situation for some time, but in a few years the accommodations were again insufficient to meet the demands. In October, 1916, a campaign for funds was put on to erect a new building. The amount realized formed the nucleus with which it was started. The corner stone was laid on April 30th, 1919.

An appeal was again made to the public for financial assistance and from subscriptions and donations sufficient funds were accumulated to help defray the enormous debt incurred by erecting a hospital at that time. The new building is picturesquely situated in the center of the block and when completed, cost approximately five hundred thousand dollars. It was opened to the public on April 15, 1921. It is designed to accommodate one hundred patients and includes the most modern conveniences known to hospital construction. The design is along classic lines, with simple, yet dignified appearance. The structure consists of four stories and basement and is strictly fireproof throughout, consisting of reinforced frame or socalled skeleton and brick and tile walls and terrazza floors. The outside is faced with se-

Mercy Hospital, Muskegon, Michigan

lect brick. The main entrance is entirely of stone construction.

The operating rooms on the fourth floor are provided with all the modern conveniences and equipment necessary in the various branches of surgery. It also has a unique obstetrical department with two birth rooms and nursery, private rooms, semi-private rooms and wards. A well equipped clinical laboratory and X-ray department form a very important factor in the service rendered by the institution. The laboratory is equipped to carry on all diagnostic and therapeutic tests used today and is conveniently situated on the fourth floor. In connection with it is maintained an organized diabetic department with adequate blood chemistry equipment and a dietitian training in the weighing and preparation of foods for the diabetic patient. The surgical and medical floors are provided with suites, private, semi-private rooms and wards. No mental or contagious cases are admitted. Each floor is provided with silent call signals, as well as telephone connections. The general kitchen and main diet kitchen are located in the basement and food is carried to the floors by means of electric dumb waiter and served from the diet kitchen on each floor, under the direction of a competent dietitian.

The hospital has an open staff consisting of fifty members, with Dr. Geo. L. LeFevre as chief. There are eleven departments under the supervision of competent specialists. Any reputable physician approved of by the hospital staff and medical profession is privileged to practice in the hospital.

Regular monthly meetings are held with a good attendance. The summary of the month's service is submitted and cases of importance are discussed. The hospital is rated in class "A" by the American College of Surgeons and is also approved by the American Medical Association. The interns receive rotary service under the direction of the heads of the various departments.

The training school for nurses was established in 1903. The course of training is three years. The services included in the training are surgical, medical, obstetrical, operating room, birth room, diet kitchen, X-ray and laboratory.

PROGRAM

PRELIMINARY SCHEDULE

September 8th—

12:00 m.—Council Meeting.
2:00 p. m.—House of Delegates.
7:00 p. m.—House of Delegates.
9:00 p. m.—Entertainment.

September 9th—

9:00 a. m.—Clinical Program.
1:15 p. m.—Clinical Program.
4:15 p. m.—House of Delegates.
7:00 p. m.—General Session.

September 10th—

9:00 a. m.—Clinical Program.
12:00 m.—House of Delegates.
1:15 p. m.—Clinical Program.
4:30 p. m.—Adjournment.

Detailed program will appear in the August issue. Watch for it.

Muskegon

—

Our

Convention City

for 1925

Annual Meeting

September

8th, 9th and 10th,

The Journal
OF THE
Michigan State Medical Society
ISSUED MONTHLY UNDER THE DIRECTION OF THE COUNCIL

PUBLICATION COMMITTEE
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C. D. Darling.....Ann Arbor
J. D. Bruce.....Saginaw

Editor and Business Manager
FREDERICK C. WARNSHUIS, M. D., D. Sc., F. A. C. S.
Grand Rapids, Michigan

Entered at Grand Rapids, Michigan, Postoffice as second class matter.
Acceptance for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917, authorized August 7, 1918.

All communications relative to exchanges, books for review, manuscripts, news, advertising and subscriptions are to be addressed to F. C. Warnshuis, M. D., 4th Floor Powers Theatre Building, Grand Rapids, Michigan.
The Society does not hold itself responsible for opinions expressed in original papers, discussions, communications, or advertisements.

Subscription Price—$5 per year, in advance

JULY, 1925

Report Malpractice Threats Immediately to Doctor F. B. Tibbals, 1212 Kresge Building, Detroit, Michigan.

Editorials

COMMERCIALIZED ROENTGENOLOGY

We have nothing but the highest praise and regard for those who are engaged in radiographic work and X-ray diagnosis. This specialty has contributed much to the advancement of our diagnostic acumen and has enhanced our therapy. The workers and students in our X-ray laboratories are outstanding leaders in modern medicine.

Unfortunately, however, there has crept in on the sidelines a coterie of so-called roentgenologists who are stooping to commercialized activities and who are endeavoring to do so-called X-ray work for fees only. Anyone can come in and have a radiographic film made, and receive a written report or opinion, provided he can pay the fee. The individual receives a report, which in many instances says nothing and is merely a grouping of words and phrases. The X-ray man pockets the fee. It is regretable that even some of our better men engage in such practices, which reflect simon-pure commercialism. The practice seems to be extending. It is quite apparent that our radiological societies might well give thought and action to this type of practice. Radiological organizations must assume a definite stand and aggressively seek to terminate this class of work. There is but one way and that is to limit their radiographic work to referred cases, coming from bonafide physicians or surgeons. Secondly, to refrain from giving films or reports to patients and to send reports only to attending or designated doctors. It is urged that such become a universal procedure and that doctors cease refering work to the X-ray man who will take a picture for every Tom, Dick or Harry who may come to his X-ray laboratory. Commercialization of roentgenology must be stopped.

MUSKEGON ANNUAL MEETING

Our annual meeting will be held in Muskegon on September 8th, 9th and 10th. Our August issue will contain the program and official details. The program committee is rounding out a splendid and intensely valuable as well as interesting scientific program. The Local Committee on Arrangements is making every preparation for your comfort and pleasure.

If you have not already done so, we urge that you write now for your hotel reservations. The Occidental Hotel will be headquarters. Dr. William LeFevre of Muskegon, Chairman of the Hotel Committee, will aid you in securing desired reservations.

Mark the date on your calendar, plan now to attend and watch our next issue for final details. The Muskegon Meeting is going to be more than worth while.

ANNUAL A. M. A. MEETING

The 1925 annual meeting of the American Medical Association that was held in Atlantic City, the week of May 22nd is now a matter of record. That record will reveal in future years another step of advance of that greatest of all medical organizations. The session was characterized by no one outstanding feature or act. It reflected the spirit of progress of American scientific medicine. As far as we have heard or could learn, the section meetings were well attended and their programs were filled with interest awakening papers and discussions. President Haggard's address was a masterpiece as well as an inspiring message to all medical men. The presence of Mr. Hall, the President of the British Medical Society, and also the presence of the Secre-

tary of the Canadian Medical Secretary evidenced a fraternal spirit that bids well for the formulation of some fraternal alliance between these three great, English-speaking medical organizations.

The House of Delegates conducted in an expeditious and satisfactory manner the vast amount of business that was presented to it. There were no radical enactments. The outstanding features were the reports revealing the splendid progress of the association. The authorization of an Opium Commission to study and compile recommendations regarding opium traffic and the scientific use of opium reflects a commendable movement in which the voice of the profession will have a guiding influence in future opium legislation. A stand was taken against corporate practice of medicine and all medical men were enjoined from selling their services to corporations engaged in re-selling to the public, at a profit, medical and health advice and treatment.

Dr. Wendell Philips, of New York, was elected President-Elect. Dr. Philip Marvel, of New Jersey, was chosen as Vice-President. Dr. Olin West was re-elected as Secretary, as was also Dr. Austin Hayden as Treasurer. Dr. F. C. Warnshuis was re-elected as Speaker. Doctors D. Chester Brown, of Connecticut, A. R. Mitchell, of Nebraska, were re-elected as members of the Board of Trustees. Doctors Joe Pettit, of Oregon and C. P. Carey of Texas are the other newly elected trustees. Dallas, Texas was selected as the place for holding the 1926 meeting.

Elsewhere in this issue we are imparting the more important portions of the reports that were submitted. We urge that every Michigan man will take the time to read them. They contain important information and reveal just what is being accomplished by your national organization in your interests and for your personal good. We also feel that as you perceive that which is being done that you will want to subscribe your support by becoming a Fellow of the American Medical Association. Michigan's four delegates, Doctors Hornbogen, Brook, Frothingham and Gorsline were in attendance at all of the sessions.

A COUNTY SOCIETY PROGRAM

As we stated at the County Secretaries' Conference, the reason for a County Society organization is not alone, the holding of periodic meetings for scientific discussion. That was a primal reason for organization, but as times have changed and progress has been recorded there have been added other objects and obligations. A county unit now has an obligation to the public and to the social and civic life of the community. It also has a very pertinent responsibility in the problem of educating the people in regard to the truths of modern medicine. The society that ignores or only mediocrely assumes to acquit itself of these present-day obligations is not keeping abreast of accepted organizational purposes and activities. The need is very apparent for an awakening and the assuming of work that is recognized to be within the scope of the purposes and objects of county organizations.

In this issue, under the Executive Secretary's Department, there will be found an outline that is advanced as a suggestion for a minimum year's program for our County Societies. We urge that our members and the Officers of the County Units familiarize themselves with this proposed program. We further recommend that definite steps be taken to assume such a program and to promptly initiate it in every county in the state. If County Officers will but exhibit some enthusiasm, if they will but determine to cause their local Society to undertake the carrying out of such a year of work, we are convinced that the end results will be such as to cause their organization to take on an activity that will bring returns that are of incalculable value to every member.

Our hope is that the coming months will witness the adoption of this program and in so doing cause our county units to take a forward step in medical activity that will create a most wholesome interest on the part of every doctor. Try it. Call on us for any help that we can give. Well may we set forth on such a comprehensive plan.

MEDICAL SOCIETIES

Of course, we all belong to our County and State Medical Societies, and to the American Medical Association. These are things which are expected of every active and ethical physician. Does the question ever arise in any of our minds whether we are getting our money's worth for what we spend in dues in these various societies?

If we are not getting anything, or very little, out of our medical societies, the reason is not far to seek: it is because we are putting nothing into them. You can't get anything out of a jug (or a medical society) that hasn't first had something put into it.

Sit down quietly for a few minutes and ask

yourself some questions, and answer them honestly.

What kind of a county society would we have if every member made exactly as much effort as I make to see that its meetings are a success?

How successful would the meetings of the State Society and the A. M. A. be if every member attended them as regularly as I do, and contributed as freely to the discussions as I contribute?

How much fraternal spirit and co-ordinated effort would there be in the profession if every member of it were as friendly and helpful and as good a co-operator as I am?

If you say to yourself that you are never asked to read a paper before any of the societies, do you ever stop to wonder why that is? There is a reason for everything that occurs in this world. Let's look for this one.

The officers of the County Society are desirous of preparing programs which will interest the members. They go earnestly over their lists to find those who *have something to say.* The man whose profession is nothing more than a means for earning his daily bread rarely has any overflow of energy to give his confreres. Your County Secretary is looking for the fellows who bubble over with an enthusiasm which is contagious; the men who study, who keep records of their cases and who take an active part in the discussion of the papers which other doctors present. You cannot "hide a candle under a bushel," nor can an enthusiastic and well-informed man remain in obscurity in any professional gathering.

Here is the formula for getting abundant returns on your society memberships.

First, you must be not merely contented with your profession, but you must take an active pride and joy in it.

Keep posted on the new developments along the lines in which you are especially interested. Get a medical hobby and *ride it hard,* being prepared to accept the falls which your confreres will take out of you, and keeping yourself "loaded" to answer their questions and arguments.

When you receive the program of the next county meeting, look over the subjects which are to be presented and then get down your textbooks and read them up so that you will be prepared to discuss them intelligently.

If you do this regularly, it will add greatly to the interest of the meetings, and points will be brought out which will be vastly helpful to you; moreover, you will soon gain the reputation of being a well-posted man and will be asked to present papers before the society.

When you have a paper to prepare, do it *thoroughly.* Go over your cases for material which will illustrate the points you want to bring out; consult the textbooks; go over your paper with the A. M. A. *Style Book* and get it into sound and attractive literary form; if your reference library is not so extensive as you could wish, here is a place where we can help you. We have a large reference library, and will be glad to look up matters for you and give you a list of articles on your subject.

If, after all your efforts, the literary form and style of your article are not all you could desire, but it contains valuable *ideas,* we will dress it up for you.

The only ethical way in which a physician can advertise is by writing articles for the medical journals. If your published communications are original and well presented, the authorities of the State Society will eventually find you out and your field of usefulness will become enlarged.

Follow out these ideas consistently and regularly, year after year, and you will find that there are no limits to your progress except those you set for yourself.

Remember, you have to put something *into* a bottle (or a society meeting) before you can take anything out; and the more you put in, the more you can take out. Remember, also, that if you have more stuff than your present bottle will hold, you are sure to be provided with a larger bottle.—*Clinical Medicine.*

Editorial Comments

Dr. Ray Lyman Wilbur, in discussing "Maintaining Standards Without Excessive Standardization," aptly points out some of the faults and fallacies of standardization that seems to have so prominent hold upon our educational and hospital organizations. We quote the following pertinent comment: "The difficulty has come from the attempt to set fixed barriers and permanent staging in the great and rising stream of intellectual growth and progress. . . . Parrot teaching, where the fountain pens of students reproduce the record, often an old one, of the teacher, flourishes where set standards, set examinations and conscientious but unimaginative examiners keep up the bars against the unfit."

"The maintenance of quality is necessary in education and especially in professional training, but too many methods of maintaining standards have been more quantitative than qualitative, more pedantic than fundamental.

"The setting up of examining boards, while advantageous in many ways, has reached a point where it handicaps the development of the professions more than it helps. Either the boards must change the type of examinations, making them practical in character, or some other device must be found to free the universities and professional schools from the narrowing influences of rigid legal standards in the field of education."

Individual initiative is stunted when all are required to conform to the same standard. Research, personal observation and progress are arrested by the universal conformity to standards. Rule of thumb insisted upon would make us all automatons. General and broad principles as essential, but rules and sub-rules have no place in our professional and hospital organizations. Let us have standards, but let us also have sane interpretation of them, while at the same time af-

fording freedom for the recording of individual initiative and individuality.

The number of single rooms in Muskegon hotels are somewhat limited. Consequently, the local committee on Hotels request that members "double up" and share a room with a fellow. This will enable the committee to provide satisfactory accommodations for all. Find a "pal" and write for a reservation for both of you.

Our editorial and secretary's office is ever ready and eager to be of assistance to our members. To that end do we invite you to call upon us for every assistance, information or advice that is within our power to render to you. We are eager to render such services. County Secretaries are also invited to call on us for such help as we can give in County Society work. Our Executive Secretary, Mr. Smith, is at all times ready to aid in solving your organizational problems. Whenever his engagements permit he will be glad to attend your meetings. So we again reiterate that these headquarters are ready to serve and welcome your requests for assistance. We trust you will have no hesitancy in utilizing the service that awaits.

The House of Delegates of the A. M. A. directed that a commission be appointed to study our opium problem and bring in definite recommendations as to policies and organizational activities to protect the scientific interests of the profession. This was a wise step, for it will undoubtedly forestall embarrassing situations and will prevent ensnarement in coils of governmental red tape. We believe that had such a step been taken at the time that prohibition was inaugurated, we would have been free from the unwarranted restrictions that have been applied in regard to the medicinal and surgical use of alcohol. We anticipate some very constructive and effective work from this opium commission of our national organization.

Delegates from County Societies represent the members of our State Society and determine it's policies and activities. To be a delegate is not an idle honor. It involves responsibility and work. Our House of Delegates is the legislative body of our Society. It is therefore essential and desirable that every County Society choose as its delegates men who will attend each session of the House of Delegates and who will come prepared to contribute their time and judgment in solving our organizational problems.

Chairman of our Standing Committees are hereby notified that the annual reports of their committee activities are to be sent to the State Secretary not later than August 5th. These reports will be published in the official program for the information and action of our House of Delegates. It is the desire of President Clancy that each Standing Committee shall not only set forth what has been accomplished during the past year, but also to make definite recommendations for future activity.

We again solicit the sending in for publication Case Reports. The Publication Committee is extremely anxious to enlarge this feature of our Journal. To do so it must receive the support and interest of our members. Will you not take the time to set forth, in clinical detail, the report of some interesting case that you have been called upon to attend? You will profit in doing so and at the same time you will be rendering a service to your fellow members and The Journal. Please.

Our Upper Peninsula members are urged to avail themselves of the post-graduate Clinical Conferences that will be conducted in the Upper Peninsula during the month of July. A splendid corp of speakers have been selected who will present an interesting program that will be of practical value. It is also proposed to conduct a public meeting each evening. The request is made that every man in the Upper Peninsula turn out and urge his patients to attend the public meetings.

In this issue we are commencing the publication of a series of Medical Historical Talks from the pen of Dr. J. G. Manwaring of Flint. The series will continue through five issues of the Journal. We are extremely delighted to receive such a manuscript and feel that our members will more than enjoy these articles that represent much thought, research and labor.

The man who once won a presidential nomination by reason of a fortunate circumstance that was created by juggling a few words about a "cross of gold" seems to be currying the limelight in between the sale of Florida real estate by his attitude toward scientific facts and investigations. The demonstration that he is making reveals how a public character may stir up a passing tempest the while he ignores established fundamentals. Of course, there will flock to his side a horde of similarly mentally "bents." A poor school teacher may be the butt for the time being, but in the end basic principles will remain undisturbed and science will still hold that which it has established and, what is more likely, be upon a wider and more sound foundation. In the meantime why be disturbed? It matters little to us whether we came up through the cycles from a jelly-fish, or suddenly had the air blown into us.

Hospital internship covering a service of not less than a year is now required by a majority of state boards before a candidate can come up for examination and receive a license to practice. The interne year is now being termed as the fifth college interne year. While state boards have made this a requirement, many boards have failed to clearly set forth the scope and extent of hospital work that is to be done during that year. True, certain months have been allotted to major medical divisions and the service required is to be rotary in character, still too much leeway is permitted and definite responsibility upon the hospital is not clearly fixed. It would seem that our medical schools and state boards might well prepare an accepted outline with fixed requirements and then demand that hospitals and hospital staffs shall so conduct their courses of interne instruction. Such requirements would tend to cause hospital staff members to manifest renewed activity and would cause them to brush up and modernize their services so that patient, staff member and interne would all profit. That is something for state board members of this country to think about.

Michigan is entitled to five delegates in the House of Delegates of the A. M. A. next year. Our quota has been raised by reason of a reapportionment of membership basis and the enlarging of the A. M. A. House of Delegates to 175 members. The added delegate from our state will be elected at the Muskegon meeting, together with an alternate, and will serve for a period of two years.

In several places in this country there have sprung up corporations owned and conducted by a majority of laymen on the board of directors who solicit members at an annual fee and who give these members what is purported to be a periodic physical examination. Their plan is patterned after the New York Life Extensions Institute. These corporations or asso-

ciations or Institutes, as they are called, appoint a staff of doctors in various cities and communiites who act as their examining physicians. Members are sent to these physicians. who compose the staff, for their physical examinations. The physicians' findings are sent to the home office and the member receives his report from the home office with such additional comments and advice as that home office sees fit to impart. The staff physician receives from three to five dollars for making the examination. The home office charges the member an annual fee of from fifteen to twenty-five dollars, thereby making a profit at the expense of the examining physician. That is corporate practice of medicine and such practice is decried by our American Medical Association. At the Atlantic City meeting, doctors were advised that to thus sell their services to a corporation was unethical and it was further urged that such practices be discontinued. It was also recommended that County Societies exercise their influence to cause the discontinuance of such practices by their members. We cannot quite perceive why a doctor will undervalue his service, sell it to a corporation and permit such a corporation to make a financial profit at the doctor's expense. If your services are worth twenty-five dollars to a person that you examine by selling it through a broker, it surely is worth twenty-five dollars by selling it direct to the examined person. Why, then, are you willing to sell your services to a corporation for three or five dollars and permit the corporation to collect the twenty-dollar profit? A doctor is certainly receiving nothing out of the glory of being listed as a corporation. examiner, though we fear that there are some who consider such an appointment as an honor and are willing to rest on that honor while the corporation or institute pockets the money. We therefore recommend that every doctor in Michigan who has been making these examinations for institutions or corporations, resign. Don't let an institute get away with fees that are yours. Just as soon as these institutes find it impossible to secure examiners, they will go out of business and then the business will come to you direct and no one will be making a fat profit from your services for which you are now being underpaid. Send in your resignation today. Bring the matter up at your County meeting and let all agree that they will not serve as examiners for any corporation or institute. Then, as a county organization, formulate a plan of education for the public in your county and acquaint them with the need and value of a periodic physical examination and so build up and control this commendable health activity in your county and incidentally receive just recompense for your services. A number of County Societies have done so successfully. You can do the same thing in your county. Cease filling the coffers of institutes.

Hygeia should be on the reception room table of every medical man. It is the most effective agent to acquaint the people with medical truths. It exposes the fads and cults as well as fake and impotent agents. Hygiea needs at this time the assistance of every doctor to place it before the public and into our American homes. You are urged to assist in increasing its circulation. Send in your subscription today to the American Medical Association, 535 N. Dearborn street, Chicago. The sooner the entire profession wakes up and subscribes 100 per cent support to Hygiea, the sooner will it find itself placed in the right light before the public.

We have received so many complimentary letters relative to our election as Speaker of the House of Delegates of the A. M. A. for the fourth time that we have been unable to answer all of them. We are appreciative and value these expressions and good wishes. We trust that we may continue to merit this honor and confidence and purpose to cause our official actions to justify the trust that has been placed in us.

American Medical Association Reports

Editorial: Here are facts regarding your American Medical Association. We want you to know them. Knowing, we then urge your support and affiliation.

REPORT OF OFFICERS

REPORT OF SECRETARY

Dr. Olin West, Secretary, presented the following report, which was referred to the Reference Committee on Reports of Officers:

To the Members of the House of Delegates of the American Medical Association:

I have the honor of submitting the following report for the year 1924-1925:

MEMBERSHIP

The membership of the Association as enrolled, April 1, 1925, was 90,645, which is 590 more than the membership recorded at a similar time in 1924.

FELLOWSHIP

There were 56,121 names on the Fellowship roster, April 1, 1925. This represents a gain of 2,058 over the number of Fellows reported to this House last year. While 5,104 new names were place on the roster, 3,046, including the names of Commissioned Officers in government services, were removed. These removals were due to: deaths, 608; resignations, 720; nonpayment of dues, 369; not eligible, 713; not found, 24; commissioned officers not on active duty, 612.

The increase of more than two thousand in the Fellows of the Association is very gratifying, because it establishes their number at a much higher figure than ever before recorded and because it indicates a growing tendency on the part of the members generally to contribute directly to the financial support of the Association and to participate more actively in all its work.

Many of the Secretaries of constituent state associations, some of their journals and a number of County Society bulletins have co-operated splendidly in efforts to acquaint the whole membership of the Association with the facts about Fellowship. This has had good effect and has already produced a number of applications. It is expected that greater results will finally accrue from the work that these state and county Secretaries and editors have done in this matter.

The number of Fellows in each state is shown in an accompanying table.

CONSTITUENT ASSOCIATIONS

The largest of the constituent state associations have made splendid progress in perfecting and in carrying out constructive programs during the past year. This may also be truly said of several whose membership is more limited and even some with a very small membership.

Very few of the state organizations have "marked time," and there are only one or two now from which satisfactory reports cannot easily be secured. It is undoubtedly true, generally speaking, that the constituent associations as such are stronger and better than ever before.

This is in large manner due to better organization and increased and concerted activity in the standing and special committees of the state associations, under the guidance of their duly chosen officers. More of the state associations have developed or are developing definite programs of work than ever before; more of their members have been called into action in devising and in carrying out these programs; more and more the spirit of team work is being fostered and developed; and, finally, more than ever before the progressive state association is striving to bring home to the individual member his own responsibilities and to secure to him direct benefits out of his membership and his participation in the work of the organization.

While there are problems that are common to all state associations, there are also problems peculiar to each. For that reason, the programs of the several states vary materially. One association deals intensely with one or two specific questions that press for solution which may not be immediately urgent in another state. Thus, one devotes its principal efforts, aside from its scientific matters of legislation; another seeks to develope a satisfactorily effective plan for the instruction of the public; still another devotes its energies to the solution of some other problem which is thought to be of greatest importance. So it is that experience is being gained in a number of states which will enable each association to help the other; and that they will help each other is shown by the fine spirit of co-operation that has already been demonstrated in many ways.

Four additional state associations have secured full-time executive secretaries during the past year. These are Indiana, Michigan, Minnesota and West Virginia. The employment of such officers is being considered in other states.

ORGANIZATION OF CONSTITUENT ASSOCIATIONS

State	Number Counties in State	Number Component Societies in State Assn.	Number Counties in State Not Organized		Number Physicians in State (9th Ed. Directory)	Number Members of State Association		Number A.M.A. Fellows in State
			1924	1925		1924	1925	
Alabama	67	67	....	....	2,284	1,662	1,595	399
Arizona	14	11	3	3	378	225	222	153
Arkansas	75	66	10	10	2,212	1,197	1,249	479
California	58	40	16	16	8,363	3,929	3,436	3,012
Colorado	63	25	25	25	1,837	1,090	1,083	704
Connecticut	8	8	....	....	1,884	1,160	1,201	750
Delaware	3	3	....	....	256	147	155	84
Dist. Columbia	.....	.....	....	....	1,818	566	537	374
Florida	63	28	24	33	1,452	514	673	334
Georgia	161	93	54	57	3,122	1,716	1,671	841
Idaho	44	10	17	17	416	260	263	170
Illinois	102	95	4	4	10,743	6,653	7,107	5,316
Indiana	92	84	6	6	4,251	2,735	2,716	1,520
Iowa	99	97	....	....	3,378	2,459	2,374	1,540
Kansas	105	60	31	42	2,364	1,640	1,594	926
Kentucky	120	110	10	10	3,041	1,969	1,778	775
Louisiana	64	37	24	21	1,991	1,169	1,255	665
Maine	16	15	1	1	1,037	767	753	378
Maryland	23	21	....	....	2,313	1,231	1,264	795
Massachusetts	14	18	....	....	6,187	4,078	4,128	2,757
Michigan	83	57	7	7	4,837	3,181	3,051	1,816
Minnesota	87	38	6	8	2,823	2,042	2,087	1,315
Mississippi	82	37	4	9	1,702	1,024	947	318
Missouri	115	101	6	7	5,806	3,292	3,335	2,000
Montana	55	16	35	39	525	303	259	169
Nebraska	93	56	34	34	1,869	1,239	1,220	743
Nevada	17	3	14	14	129	115	100	78
New Hampshire	10	10	....	....	601	499	504	268
New Jersey	21	21	....	....	3,567	2,092	2,118	1,545
New Mexico	31	13	15	15	365	201	263	145
New York	62	60	1	1	17,671	10,087	10,396	6,480
North Carolina	100	71	20	20	2,281	1,656	1,612	606
North Dakota	53	14	2	2	485	395	380	288
Ohio	88	85	3	3	8,113	4,759	5,206	2,850
Oklahoma	77	69	9	9	2,524	1,539	1,686	742
Oregon	36	17	1	2	1,176	589	482	361
Pennsylvania	67	63	4	4	11,140	7,433	7,474	4,659
Rhode Island	5	6	....	....	771	399	411	297
South Carolina	46	41	5	5	1,317	916	957	398
South Dakota	69	11	1	2	604	358	352	239
Tennessee	95	67	27	25	3,128	1,711	1,616	709
Texas	254	135	66	73	6,063	3,650	3,758	1,800
Utah	29	6	23	22	505	356	330	246
Vermont	14	10	3	3	537	389	365	190
Virginia	100	52	43	43	2,534	1,843	1,845	754
Washington	39	19	20	20	1,781	1,122	1,165	673
West Virginia	55	28	14	14	1,753	1,142	1,174	586
Wisconsin	71	53	1	2	2,826	1,914	1,846	1,322
Wyoming	23	7	12	13	255	163	135	102
Alaska	.....	.....	....	....	56	20	20	10
Hawaii	5	.....	....	....	225	92	104	49
Porto Rico (districts)	7	.....	....	....	321	125	153	37
Canal Zone	.....	.....	....	....	127	102	90	27
Philippine Islands (provinces)	56	.....	....	....	905	151	151	47
Foreign	.....	.....	....	....	.....	.....	.....	58
Totals	3,136	2,054	597	641	148,644	90,056	90,646	53,899
Commissioned Officers, Honorary and Affiliate Fellows								2,222
								56,121

Several constituent associations are now conducting extension courses for the benefit of members of their component societies. The Michigan State Medical Society has recently instituted such courses, and they have apparently been enthusiastically received. The plans under which clinical instruction is carried to the members at a central place, easily reached by the physicians of one or more counties, vary to some extent in the different states. In some instances the work is done through the co-operation of the state association and the state university; in others, wholly as the enterprise of the association. In one state, at least, the state university is the leading factor. However the movement may be organized and conducted, there can be no doubt concerning the value of such efforts to promote the scientific efficiency of those members who cannot go at regular intervals to the centers where the more elaborate courses of graduate instruction are offered. The clinics and lectures of the state association's "home course," properly conducted, will be stimulating to those who, by a little extra effort and sacrifice, can avail themselves of the benefits of more intensive and extensive courses offered by graduate schools and hospitals; they will undoubtedly contribute to some extent to those who cannot get away from their homes for greater professional efficiency on the part of attendance at graduate schools.

There are twenty-two constituent associations each of which has less than 1,000 members. Of these, there are seventeen having less than 500 members each, and nine of these have each less than 200. All these labor under the disadvantages that are imposed by their small memberships, but they nevertheless carry on with courage and acquit themselves with credit.

The Medical Society of Porto Rico has reorganized with seven component societies. These supplant the two district societies which were the units of organization in Porto Rico. This is in accordance with the plan whereby the county is made the basic unit of organization. There are now only one or two state associations that do not fully conform to this plan.

COMPONENT COUNTY SOCIETIES

It seems probable that more county societies have been persistently active during the last year than for a number of years. It is certain that many have broadened their programs and have extended their usefulness, with relation both to their members and to the public. Some inactive societies have been revived. However, there are yet too many that are dormant. These have no programs, no purpose, no value. They serve only to give those whose names are enrolled as members entry to the state associations and the American Medical Association, and to make them eligible for remunerative connections with corporations. The members of these societies that exist only "on paper" thus enjoy privileges which they do not earn.

The problem of the inactive county society is one not always easy of solution. There are geographic and topographic factors; and there are personal and physical factors in the problem. Occasionally, it may be, the officers of the state association are not as active as they might well be in trying to "stimulate the zeal" of the members of a dormant county organization. In some instances it is probable that charters have been issued to county societies for which there could be no hope for the development of efficiency as medical organizations.

In some states, effort is being made to attach the weaker societies to those that are already strong, or to combine two or more weak societies in the hope that one strong one may be developed. In other states the district society is being fostered and strengthened as an aid to the county society. Both of these plans are altogether worthy of thorough trial in any state in which inactive county societies are to be found; but all possible effort should be made to keep up efficient organization in every county having a sufficient number of eligible physicians to make an active society possible.

A few county societies have developed their own plans for intensive clinical instruction. In some instances the diagnostic clinic is made the feature of these programs; in others, special addresses are delivered at regular intervals in accordance with a well prepared schedule. While it is not every county society that can successfully carry out work of this nature without aid from outside its own membership, many can do so to splendid advantage. Many others can easily secure aid that may be required.

A few county societies, also, have devoted especial attention to the subject of periodic medical examinations and have succeeded in arousing the interest of their members in this important subject.

THE AMERICAN MEDICAL ASSOCIATION BULLETIN

The Bulletin is now going to the more than 56,000 Fellows of the Association. It is apparently widely read, if the large number of letters received commenting on its content mean anything in that connection. Practically all these letters have been commendatory, indicating, perhaps, that the Bulletin is satisfactory in quality to its readers. Its editors are not at all satisfied with it, for the reason that its real purpose is not being fulfilled. The members of this House of Delegates, the officers of state and county societies, and the subjects of every day interest to physicians are not utilizing the Bulletin in the way it was intended that it should be used by them.

OFFICIAL VISITS TO STATE AND COUNTY SOCIETIES

Whenever possible, in response to invitations, officers of the Association have attended meetings of state associations and county societies. The President, President-Elect, members of the Board of Trustees, the speaker of the House of Delegates, the Editor of The Journal, directors of the Bureaus, secretaries of Councils, and the Secretary of the Association have all responded to official invitations of the kind indicated and have endeavored to acquaint the members of the societies visited with some of the details of the numerous acitvities of the Association and to ascertain how its service to its constituent and component units can be extended and improved. As a result of these official visits information has been brought back to the Association's headquarters which has, in all instances, been acted upon in a manner that has been intended to serve to the advantage of the general membership.

DELEGATES FROM THE BRITISH MEDICAL ASSOCIATION AND FROM THE CANADIAN MEDICAL ASSOCIATION

The Association will be honored at this session by the presence of official delegates representing the British Medical Association.

The Canadian Medical Association will be officially represented by its Secretary, Dr. T. C. Routley, whose appearance in similar capacity be-

fore the House of Delegates at San Francisco will be most pleasantly recalled.

ACKNOWLEDGMENT

The Secretary has again to acknowledge the kindly consideration and help he has received from the entire official personnel of the Association, including the members of this House. The officers, and especially the secretaries of state associations, have placed him under deep obligation by reason of their prompt, courteous and helpful response to his official communications. The co-operation received from these sources has been finer in the past year than ever before, which is only to say that it has been well nigh perfect.

From the officers of county societies, from the editors of state journals and county bulletins, and from many individuals turned to for information and assistance, kindly and truly helpful response has been made to nearly all appeals.

Olin West, Secretary.

REPORT OF THE BOARD OF TRUSTEES

Dr. Thomas McDavitt, St. Paul, Vice Chairman, presented the following report, which was referred to the Reference Committee on Reports of Officers:

To the Members of the House of Delegates of the American Medical Association:

DEATH OF DR. W. T. WILLIAMSON

Dr. Walter T. Williamson, Chairman of the Board of Trustees, died at his home in Portland, Ore., March 2, 1925. Dr. Williamson, because of his courteous bearing and his kindly consideration for his fellows, and because of his devotion to duty as an officer of the Association, won for himself a high place in the esteem and affection of all with whom he was officially associated. The Board of Trustees will, at a later time, present formal resolutions on the death of Dr. Williamson.

RETIREMENT OF DR. SIMMONS

Dr. George H. Simmons, having completed more than twenty-five years of honorable and distinguished service as Editor and General Manager of the Association, retired from active duty, September 22, 1924, after presenting a characteristically thorough accounting of his stewardship. Dr. Simmons, in accordance with action taken by the House of Delegates, is now Editor and General Manager Emeritus.

On November 22, 1924, after election by the Board of Trustees, Dr. Olin West assumed the duties of General Manager. Dr. Morris Fishbein, by action of the Board, became Editor, and Mr. Will C. Braun, Business Manager.

THE JOURNAL

The general policies of The Journal have been maintained as heretofore. No major changes with respect to the general make-up and the character of the contents of The Journal have been put into effect. Effort has been made, however, to have more editorials discussing current events, subjects pertaining to medical economics, and other matters of immediate interest to the general profession.

There has been continued improvement in the news columns of The Journal.

The department devoted to the proceedings of medical societies is being further developed.

The editorial plans for The Journal contemplate sustaining it as the periodical essential to the progress of the general practitioner.

SUBSCRIPTION DEPARTMENT

On January 1, 1925, the mailing list of The Journal contained the names of 85,536 subscribers, which number represents an increase of 4,578 over the preceeding year, and marks the highest point attained in subscriptions in the history of the publication .

On January 1, 1925, the subscription price of The Journal was reduced from $6 to $5. This reduction may have been responsible to some extent for the increase in circulation, but it is not believed to have been a very material factor. The reduction of the subscription price of The Journal resulted, of course, in a very material decrease in the annual income of the Association.

The Subscription and Membership Departments have pursued the same methods that have been found advantageous in the past in maintaining the circulation of The Journal. Special effort has been devoted to holding subscribers, as well as to obtaining new subscription orders. Due diligence has been used in making collections on current and past accounts.

Subscription is maintained through direct appeal to individuals by sending out form letters, 101,783 of which were mailed during the year; by distributing sample copies of special numbers of The Journal among hospitals, other institutions and groups; and, finally, to a limited extent, through the offer of a premium of substantial value to prospective subscribers. One man was in the field in Georgia, and later in New Jersey, soliciting subscriptions to the publications of the Association and inviting eligible men to become members of the medical associations of these states, working, of course, under the direction of the proper officers of the state and county medical societies. As a result of his work, 232 applications for membership (ninety-six in Georgia and 136 in New Jersey), 413 subscriptions to The Journal, and thirty-nine subscriptoins to special journals were secured in these two states.

The total number of copies of The Journal printed in 1924 was 4,410,220, which was 176,888 more than in 1923.

The gross weekly average for 1924 was 84,811, or 3,401 more than in 1923.

The average weekly paid circulation in 1924 was 81,257, which represents an increase of 3,678 over 1923.

The total number of Fellows on the mailing list, January 1, 1925, was 52,238, an increase of 2,063 over 1924. The total number of subscribers other than Fellows was 32,562, as against 30,122 at a corresponding time in the preceeding year. The Fellowship figures here given do not include honorary and associate Fellows, commissioned officers of government services, or those Fellows who have substituted one of the special publications of the Association for The Journal.

ADVERTISING DEPARTMENT

The receipts from the sale of advertising space for the year 1924 was $614,084.67, which sum represents a decrease of $3,740.37 as compared with the receipts for 1923, or a reduction of about three-fifths of 1 per cent. Since the best available information indicates that there was a general tendency toward reduction in advertising in practically all clases of publications during the year covered by this report, this is a thoroughly satisfactory showing.

The receipts from advertising exceeded those from Fellowship dues and subscriptions by $195,-347.49. It is to be remembered that the reduction in Fellowship dues and subscription to The Journal from $6 to $5 was in effect in 1924, and

that the gross income on this account was thereby very materially lessened.

The advertising pages of The Journal have been censored during the year as heretofore, by the Advertising Committee. A very considerable volume of advertising has been offered and refused because the Committee considered it unacceptable. One or two fairly large contracts have been canceled because the advertisers refused to comply with the rules of The Journal.

SPECIAL JOURNALS

The circulation of the special journals for 1924 was as follows: Archives of Internal Medicine, 2,757, a gain of 275 over the circulation of the preceding year; American Journal of Diseases of Children, 3,108, a gain of 338; Archives of Neurology and Psychiatry, 1,274, a gain of twenty-six; Archives of Dermatology and Syphilology, 1,394, a gain of eighty; Archives of Surgery, 2,169, a loss of fifty-seven.

The Archives of Otolaryngology made its appearance, January 15, 1925, with a subscription list of 2,121, which has been materially increased since that time.

This new journal has been well received, as is attested by the number of subscriptions and by the many favorable comments offered. Dr. G. E. Shambaugh, Chicago, chairman, and Doctors Chevalier Jackson, Isidor Friesner, Eugene A. Crockett, Robert C. Lynch and Greenfield Sluder are the members of the Editorial Board.

The profit and loss on these special journals for 1924 is shown in the table:

Internal Medicine	Gain	$1,152.60
Children's Journal	Gain	2,611.56
Surgery	Gain	892.25
Neurology and Psychiatry	Loss	1,135.03
Dermatology and Syphilology	Loss	2,742.42

Constant effort is being made to improve the quality of this group of the Association's publications. In order that plans intended to make such effort successful may be carried out, it has been necessary to increase the subscription price of some of them, namely, the Archives of Surgery, the Archives of Neurology and Psychiatry, and the Archives of Dermatology and Syphilology from $6 to $8.

After the end of the current volume, it is proposed that the Arcives of Surgery shall be issued as a monthly, rather than as a bimonthly publication.

QUARTERLY CUMULATIVE INDEX

The circulation of the Quarterly Cumulative Index for 1924 was 1,212. This shows only a slight increase over 1923—a gain of eleven subscribers. That this publication has established itself as an important accessory to scientific progress is shown in the fact that it is receiving more and more commendation at the hands of medical writers, research workers and librarians.

The net cost of the Quarterly Cumulative Index for 1924 was $11,388.58, which is more by the sum of $3,295.64 than in 1923. This, of course, is due in great part to the fact that the number of journals indexed is gradually being enlarged, and the quality of the publication generally improved. Careful consideration has been given to the possibility of reducing the costs of this publication, but up to this time no plan has been devised which gives promise of securing any such result.

The Quarterly Cumulative Index is extremely helpful, not only in that it provides, for the benefit of its subscribers and a large number of institutions, a splendid index to scientific literature appearing in nearly three hundred leading medical journals, but also because it meets the demands of the various bureaus and departments of the Association which require that an up-to-date index on medical literature shall always be at hand.

Because of the enlargement of the Index and the consequent growing cost of publication, the subscription price has been placed at $8 instead of $6.

AMERICAN MEDICAL DIRECTORY

The investment in the Ninth Edition of the Directory to December 31, 1924, amounted to $53,565.86, and this sum was, of course, considerably augmented by the cost of labor, printing, binding, etc., before the Directory was ready for distribution. The latter charges will appear in the financial report to be submitted at the next Annual Session.

While some economies have been effected, there has been unusual expense attached to the publication of the Ninth Edition, owing to the necessity for preparing a complete set of new master cards, and to innovations introduced for the purpose of making the Directory more accurate and complete.

The number of advance orders for the Ninth Edition received prior to January 1, 1925, was 5,681, which exceeds the number of orders at a corresponding date prior to the issuance of the Eighth Edition. A very satisfactory number of subscriptions has been received since that time.

The American Medical Directory never has been produced without a loss, and it is not probable that it ever can be. It has, however, become an established institution of great value to the Association itself, as well as to the medical profession and to those with whom physicians must have business dealings. Through the publication of the Directory, it is possible for the various councils, bureaus and departments of the Association to have at hand information that is invaluable and necessary in their daily operations. The Directory and the files of the Biographic Department constitute an almost complete record of the medical profession in the United States and its territorial professions, and in Canada: nowhere else is this record being maintained.

The maintenance of the biographic records of the Association involves tremendous labor and large expense. Some idea may be had of the amount of work necessary to keep these records accurate when it is remembered that from 600 to 650 changes in the mailing list of The Journal alone must be made each week. There can be no doubt, however, as to the value of the Biographic Department, nor as to the value of the Directory itself, which represents a very distinct contribution on the part of the American Medical Association to the profession of the United States and of Canada.

ORDER DEPARTMENT

The report of the Order Department for 1924 shows that 57,259 orders for publications and products of the Association, aside from its journals, were handled by this department during the year. This represents a gain over the number of orders handled in 1923 of more than 17,000 and shows the increase of the use of the pamphlets published by the Association. Baby welfare pamphlets were the leaders in sales, 154,115 of these pamphlets having been disposed of during the year, while periodic health examination forms were distributed to the number of 61,900.

HYGEIA

Hygeia is slowly, but steadily gaining favor, and in the fact that its circulation has now gone above the thirty thousand mark, there may be found a reasonable basis for encouragement with

regard to its final success. If we are to accept at their face value the favorable comments that have appeared in state medical journals and bulletins, the lay press, and in large numbers of letters received, we must believe that Hygeia is considered to be helpful, not only to the public, but also to the medical profession. By far the greatest number of comments made in personal communications have been commendatory; in fact, unfavorable criticisms have been received only occasionally.

Everywhere, the purpose of Hygeia is lauded, and the American Medical Association is given credit for a worthy effort in behalf of the public. It is particularly gratifying that teachers in practically all parts of the country have indicated their appreciation of Hygeia, and have informed us that they are making daily use of the magazine in their classroom work.

The clip sheets, which have been widely distributed, have been used extensively in the lay press, sometimes on the initiative of the editors of newspapers and frequently on the initiative of medical societies. Some of the most widely circulated lay magazines have made favorable comment on Hygeia and its purpose, as well as on its content and its editorial policies.

The Editorial Board has recently effected some economies which it is hoped can be applied throughout the year, and thus reduce, to some extent, the expense of securing material for publication, as well as mechanical costs.

The spirit that has been exhibited by contributors to the columns of Hygeia has been one that deserves the grateful appreciation of the members and officers of the Association. While many of these receive rather large sums for their writings for other periodicals, they have been very generous in their dealing with Hygeia.

CIRCULATION

The total number of subscribers in each state, December 31, 1924, divided into two classes—physicians and laity—is shown in the appended table:

State	Physicians	Laity	Total
Alabama	97	125	222
Arizona	72	158	230
Arkansas	113	107	220
California	694	826	1,520
Colorado	197	178	375
Connecticut	177	144	321
Delaware	21	22	43
District of Columbia	144	102	246
Florida	84	72	156
Georgia	108	120	228
Idaho	62	53	115
Illinois	1,074	1,313	2,387
Indiana	443	573	1,016
Iowa	518	596	1,114
Kansas	301	339	640
Kentucky	127	97	224
Louisiana	117	196	313
Maine	81	93	174
Maryland	143	118	261
Massachusetts	441	449	890
Michigan	570	562	1,132
Minnesota	335	445	780
Mississippi	78	96	174
Missouri	385	373	758
Montana	48	61	109
Nebraska	217	256	473
Nevada	19	13	32
New Hampshire	46	36	82
New Jersey	2 57	233	490
New Mexico	36	39	75
New York	1,349	1,105	2,454
North Carolina	133	159	292
North Dakota	64	87	151
Ohio	621	783	1,404
Oklahoma	134	156	290
Oregon	106	139	245
Pennsylvania	1,223	1,028	2,251
Rhode Island	62	52	114
South Carolina	73	69	142
South Dakota	74	95	169
Tennessee	158	159	317
Texas	343	345	688
Utah	71	126	197
Vermont	39	64	103
Virginia	169	268	437
Washington	172	242	414
West Virginia	124	175	299
Wisconsin	281	945	1,226
Wyoming	25	43	68
Possessions	57	83	140
Canada	82	148	230
Foreign	128	168	296
Navy	.....	300	300
Advertising	.....	41	41
Exchange	.....	53	53
Complimentary	.....	142	142
Agents	.....	26	26
	12,493	14,796	27,289*

*This statement was prepared so that it might be had very early in the current year, and a number of subscriptions in hand were not included.

The most difficult problems that have been met in connection with the publication of Hygeia are those which are common to all new magazines; namely, the securing of new subscriptions and the stabilizing of the circulation. It is gratifying to report that, with respect to both new subscriptions and renewals, each week shows some improvement over the record of the preceding year. The circulation among laymen has shown a very considerable increase.

Gains in circulation were made in thirty-nine states. Wisconsin registered the largest increase: in 1923, there were 464 subscribers in that state, while in 1924 the number increased to 1,226.

The question is frequently raised as to why Hygeia is not more readily available at news stands throughout the country. Under present conditions, the cost of placing Hygeia on the news stands generally would be prohibitive. Arrangements have been made with the American News Company whereby any news stand in the United States can secure Hygeia on order, as well as for news stand distribution through local dealers in some cities.

The net loss on Hygeia for nine months in 1923 was $38,989.64, while the net loss in the twelve months of 1924 was $42,745.14. The average monthly loss, therefore, was considerably less than in 1923. Earnest thought has been given by everybody concerned with the publication of Hygeia to the possible reduction of production costs. As has already been stated in this report, the Editorial Board has effected considerable saving the cost of contributed articles and with respect to the mechanical make-up of the magazine. It is felt that it would be a mistake to lower the quality of the publication, either as to its content or as to its mechanical make-up. From a printing standpoint, it is believed that any periodical published is superior to Hygeia.

It is apparent the Hygeia will be published at consierable expense to the Association until such time as its circulation has been so increased as to make it a desirable advertising medium. The probability is that the income derived from subscriptions never will be sufficient to defray more than a small part of publication expense. This is true of the more successful periodicals, even of those having a circulation of millions, and there is no reason to believe that Hygeia can be made an exception in this respect.

While it is intended that all possible methods shall be applied that will reduce promotion and publication costs, it is yet very difficult to see how any marked reductions can be effected at the present time. It will therefore be necessary, in any plans that may be adopted for producing income sufficient to enable the Association to carry on its various worthy activities, to consider Hygeia as a very important factor in the situation.

THE BUREAU OF INVESTIGATION

The interest of the medical profession and of the public in the work of the Bureau of Investigation (Propaganda Department) continues to increase. There was a small decrease in the number of letters received by the bureau from physicians during 1924. This, however, was to be expected; in the two preceding years, the interest of the profession was stimulated to an uncommon degree by the Abrams quackery, which then had its vogue, and numerous inquiries were received from physicians concerning it. On the other hand, more letters were received from laymen during the year than ever before in the history of the organization; in fact, the inquiries received from laymen and from physicians were almost equal in number.

It will be noted that the name "Propaganda Department" has been superseded by the more descriptive term, "Bureau of Investigation." This change was made because it was felt that the new name more accurately describes the activities of that department of the Association's work than the older term, "Propaganda Department." At the time that the name "Propaganda for Reform in Proprietary Remedies" was first applied, it fully and accurately described the functions of the department that bore the name. During those years, propaganda was truly needed. The acute need has passed and the work of the Bureau of Investigation covers a broader and more general field in its attempt to give the profession and the public information regarding nostrums, quacks, pseudomedicine and allied subjects.

The bureau has done a large and important work in furnishing the Associated Advertising Clubs and its affiliated bodies with information regarding quacks and "patent medicines." The Better Business Commission of Buffalo has been furnished a veritable encyclopedia on the subject of local quacks and locally exploited nostrums. On the basis of the information furnished, plus their own personal investigation, the Buffalo advertising men have carried out an active drive against the more blatant quacks and nostrum venders. This drive has stimulated the local authorities to act, and the work accomplished has been both in the interest of truth in advertising and, more important from our standpoint, a valuable contribution to the public health. Such work is being conducted all the time in the various large centers, and the bureau is exerting, and has for some years exerted, a silent, but far-reaching influence that can be appreciated only by those who are thoroughly familiar with its daily work.

Calls continue to come from schools and colleges, from both pupils and teachers, for information on the "patent medicine" evil. The work that the bureau has done in the past in furnishing authoritative information for authors of school and college textbooks on general science, civic science, biology, hygiene, etc., is making itself felt in the increased interest exhibited from those sources.

The Bureau of Investigation renders an exceptional service to the individual physician, as is shown by the fact that hundreds of inquiries are answered from physicians in every state in the Union. The educational value of the letters that go out from this bureau is tremendous: The physician is constantly called on to reply to queries propounded by patients, involving definite information which he does not possess. He therefore writes to the Bureau of Investigation, and secures, by return mail if feasible, a letter presenting the information sought. In most instances, the letter is accompanied with a pamphlet on the subject of inquiry, which can be put into the hands of the patient. Many letters are received by the bureau from physicians who wish to secure material to serve as the basis of informative talks before lay organizations, and such requests are immediately complied with whenever it is at all possible. The bureau is provided with a certain amount of exhibit material which is in more or less constant demand, and physicians are more and more availing themselves of this source of supply.

These are instances of the kind of service that is rendered by the Bureau of Investigation to the members of the medical profession, in adition to the work of preparing material for publication in The Journal. The files of the bureau are full of material that cannot be duplicated elsewhere in the world, and this is being used to the best possible advantage.

COUNCIL ON PHARMACY AND CHEMISTRY

The work of the Council on Pharmacy and Chemistry has been prosecuted along the lines that have been followed in previous years. Practically all the large producers of pharmaceuticals now find it possible and desirable to recognize the work of this Council.

One of the outstanding problems with which the Council now has to deal is that connected with the exploitation of the so-called endocrine preparations and pluriglandular mixtures.

Among those who have rendered valuable aid to the Council during the past year are the writers of a series of articles, published under the auspices of the Council, on Glandular Therapy; F. G. Banting, Frank Billings, Walter M. Boothby, A. J. Carlson, Henry A. Christian, C. W. Edmunds, D. R. Hooker, W. H. Howell, Reid Hunt, Edward C. Kendall, Graham Lusk, W. G. MacCallum, J. J. R. Macleod, William S. McCann, Joseph L. Miller, Emil Novak, Henry S. Plummer, Edward P. Richardson, Torald Sollmann, Joseph T. Wearn, Russell M. Wilder and J. Whitridge Williams. In addition, the valued assistance received from P. J. Hanzlik and the Leland Stanford University School of Medicine, H. N. Cole and the Western Reserve University School of Medicine, and from E. M. Bailey and the Connecticut Agricultural Experiment Station deserves special mention.

The members of the Council work unselfishly and without remuneration. Most of them have served since the establishment of the Council, and the entire membership is deserving of the appreciation of the medical profession, which can best be shown by a consistent practical endorsement of the Council's work.

THERAPEUTIC RESEARCH COMMITTEE

The activities of the Therapeutic Committee of The Council on Pharmacy and Chemistry are expended mainly along the following lines:

(a) The Organization of Therapeutic Research Requiring Collaboration.

Work in this field is illustrated by the recent report of the Special Committee on The Toxic Effects Following the Use of Local Anesthetics (J. A. M. A., March 15, 1924, p. 876).

A Committee for the Study of Intravenous Therapy has been organized, with Dr. Cary Eggleston as chairman.

(b) Support of Investigations of problems of Special Interest to the Council:

Work of this type is supported by the Therapeutic Research Committee when competent investigators may be secured, but almost inevitably much of it gravitates to the laboratories of those who are most interested in the topics proposed;

thus, a considerable proportion of such work is performed under the immediate direction of the Chairman of the Therapeutic Research Committee. The grants that are made in this connection cover only a small part of the cost of the investigations, and go to pay for materials and apparatus required.

(c) Support of Problems Submitted Independently:

This has taken the form of contributions toward the material expenses of investigations that were somewhat beyond the ordinary budgets of the laboratories of the investigators. The investigations conducted under the Therapeutic Research Committee published during 1924 were as follows:

Organic, Protein and Colloidal Silver Compounds, II. Their Antiseptic Efficiency in Body Fluids Rich in Cells and Protein (Defibrinated Blood), J. D. Pilcher and Torald Sollmann, Journal of Laboratory and Clinical Medicine, January, 1924.

Organic, Protein and Colloidal Silver Compounds. III. Does the "Colloidal Silver" Become Available as Antiseptic? Torald Sollmann and J. D. Pilcher, Journal of Laboratory and Clinical Medicine, October, 1924.

Organic Protein and Colloidal Silver Compounds. IV. Deterioration of Solutions on Keeping, Torald Sollmann and J. D. Pilcher, Journal of Laboratory and Clinical Medicine, November, 1924.

The Clean Inunction Treatment of Syphilis with Mercury, The Journal A. M. A., January 19, 1924.

The Use of Arsphenamine and Its Derivatives Administered by Rectum, Sidney Littmann and J. G. Hutton, The Journal A. M. A., March 15, 1924.

The Toxic Effects Following the Use of Local Anesthetics, Emil Mayer, The Journal A. M. A., March 14, 1924.

Further Observations on Anaphylactoid Phenomena from Various Agents Injected Intravenously, Paul J. Hanzlik and Howard T. Karsner, Journal of Pharmacology and Experimental Therapeutics, April, 1924.

Treatment of Anaphylactoid Phenomena from Some Agents by Hypertonic Sugar and Salt Solutions, Paul J. Hanzlik and Howard T. Karsner, Journal of Pharmacology and Experimental Therapeutics, April, 1924.

Effects from the Intraperitoneal Injection of Various Agents Causing Anaphylactoid Phenomena, Paul J. Hanzlik and Howard T. Karsner, Journal of Pharmacology and Experimental Therapeutics, April, 1924.

The Skin-Reaction to Morphin, J .D. Pilcher and Torald Sollmann, Archives of Internal Medicine, April, 1924.

Metallic Mercury Suspension, H. N. Cole, J. G. Hutton, John Rauschkolb and Torald Sollmann, The Journal A. M. A., August 23, 1924.

The Extraction and Some Properties of an Ovarian Hormone, Edward A. Doisy and J. O. Ralls and Edgar Allen and C. G. Johnson, Journal of Biological Chemistry, October, 1924.

A Microscopic Study of Mercury Absorption from the Skin, Karl G. Zwick, The Journal A .M. A., December 6, 1924

Grants issued before January 1, 1924, to apply on work which is not yet completed or published were as follows:

Grant 80: H. N. Cole, associate professor of dermatology, Western Reserve of Missouri School of Medicine, $200, to investigate the excretion of mercury with various methods of administration.

Grant 83: Charles W. Greene, professor of physiology and pharmacology, University of Missouri School of Medicine, $250, to investigate the distribution of nitrous oxide and oxygen in the blood during anesthesia.

Grant 88: M. S. Dooley, professor of pharmacology, Syracuse University College of Medicine, $75, to aid in the completion of an investigation on a comparison of the results of intramuscular injections i nthe frog of various preparations of digitalis, with colorimetric assays of the same.

Grants issued during 1924:

Grant 89: H. G. Barbour, professor of physiology and pharmacology, Louisville University School of Medicine, $150, to investigate the trypanocidal effect of certain aliphatic arsenicals.

Grant 90: H. N. Cole, associate professor of dermatology, Western Reserve University School of Medicine, $100, to investigate the intravenous injection of metallic mercury.

Grant 91: E. A. Doisy, professor of biological chemistry, St. Louis University of Medicine, $500, to investigate the isolation and study of the properties of the active constituent of the ovary.

THE CHEMICAL LABORATORY

The Chemical Laboratory, having been installed in permanent quarters in the new building, was able to work to much greater advantage during the latter part of 1924 than during the period when building operations were in progress . The laboratory is now better equipped and better housed than ever before, and its personnel has been increased by the addition of an assistant chemist.

Close contact is maintained by the Laboratory with the Council on Pharmacy and Chemistry and with the Bureau of Investigation, and a very considerable amount of work is being done in the Laboratory at the instance of these two departments. The Laboratory also serves The Journal, other bureaus and departments of the Association, and replies to numerous inquiries received from the officers and members of the Association. Some original investigations have been undertaken which give promise of producing valuable results.

During the past year, the Laboratory has elaborated for the Council on Pharmacy and Chemistry standards for practically all synthetic products submitted. It has questioned the chemical constitution of other synthetics, and manufacturers have been benefited by suggestions emanating from the laboratory, with the result that some of the newer products have been improved.

Analyses have been made for the Bureau of Investigation which form the basis of articles appearing in The Journal and in Hygeia. An investigation of the various bismuth compounds used in syphilis is now nearly complete. One member of the Laboratory staff, in collaboration with the Association of Agriculture and with official chemists, has worked out standards for chaulmoogra oil.

THE LIBRARY

The work done in the Library of the Association is much greater in amount and in scope than is generally realized. The Library is essentially a reference storehouse of current medical literature. The number of books on its shelves is not large, but more than 250 of the leading medical journals of the world are on file. More than twelve hundred inquiries were answered last year, not taking into consideration those which came by telephone or those submitted by the personnel in the Association offices. In addition to a relatively large increase in bibliographic work, there has been a marked increase in the lending of periodicals, as the result, in part, of the extension of the library service to include domestic journals. In 1923, 475 journals, and in 1924, 760 were lent to physicians.

The package library service, instituted in 1924, has not yet been perfected, but material for it is constantly being collected, and the demands for this service have constantly grown. In many instances, those who have received packages have written very commendatory letters of appreciation.

The Library personnel is called on to do a great deal of work in preparing indexes. The biggest part of this work is involved in the preparation of the Quarterly Cumulative Index to Current Medical Literature, which has grown within eight years from a volume of 283 pages to one of 900 pages. Seventy-eight other indexes were prepared in the Library in 1924, and this number will be increased to eighty-one during the current year.

For the benefit of the employes of the Association, a circulating library is maintained, in close co-operation with the Chicago Public Library.

COMMITTEE ON SCIENTIFIC RESEARCH
NEW GRANTS

Since the last report, the following grants have been made from the $2,000 appropriated by the Trustees in the early part of this year and funds already available as a balance left over from the preceding year:

Grant 68: $200 to J. F. McClendon, Department of Physiology, University of Minnesota, for purchase of precision wave meter to be used in the study of the electrical conductivity of living cells.

Grant 69: $400 to Linda B. Lange, School of Hygiene and Public Health, Johns Hopkins University, to aid in the study of the influence of diet in experimental tuberculosis.

Grant 70: $200 to R. A. Spaeth, School of Hygiene and Public Health, Johns Hopkins University, for continuation of work on the influence of fatigue or infection, for which purpose Grants 55 and 63, each of $200, were made previously.

Grant 71: $400 to H. M. Evans, Department of Anatomy, University of California, toward the study of the hormone of the anterior part of the hypophysis.

Grant 72: $250 to V. C. Jacobson, Albany Medical College, for the study of so-called implantation adenomas of pelvic organs.

Grant 73: $200 to Charles E. Simon, School of Hygiene and Public Health, Johns Hopkins University, to aid in work on experimental measles, for which purpose Grant 67, $100, was made previously.

Grant 74: $300 to Thomas Addis, Division of Medicine, Stanford University, for study of compensatory hypertrophy.

Grant 75: $200 to Victor Burke, Department of Bacteriology, State College of Washington, for investigation of the value of dye treatment of infections.

All these new grants have been paid in full, and as stated farther on, the work in each case has been completed or is in active progress.

STATUS OF WORK

The status on work still pending under new and previous grants may be summarized briefly, as follows:

Grant 39: $1,000 (unpaid balance $400) to E. O. Jordan, University of Chicago, for critical review of the literature on the influenza epidemics of 1918 and 1919, with synopsis of results achieved. This important work, which was undertaken on the invitation of Dr. George H .Simmons and the Committee on Scientific Research, is being put into shape for publication. It is believed that it will be ready by the end of next summer.

Grant 52: $400 to W. H. Welker, University of Illinois, for the chemical study of bacterial proteins. The work under this grant is nearly completed.

Grant 53: $300 to F. P. Underhill, Yale University, for study of metabolsim of inorganic salts. One article giving results of this work has been published in the Journal of Biological Chemistry; further publications will be made. Of this grant, $270 was used for the purchase of platinum crucible, which, according to the rules, are the property of the American Medical Association.

Grant 54: $350 to Albert Keidel, Johns Hopkins Hospital, for investigation on the occurrence of Spirocheta pallida in the arachnoid fluid in the early stages of syphilis, conducted by Doctors Chesney and Kemp. This work has been completed, full account of the expenditures has been made, and the results have been published in The Journal of the American Medical Association, November 29, 1924.

Grants 55, 63 and 70: $600 in all to R. A. Spaeth, Johns Hopkins School of Public Health; for fatigue and infection. This work has been concluded and the results will be published in the American Journal of Hygiene. Full accounts of all expenditures have been renderd, and the unused balance, $144.52, has been refunded.

Grant 57 and 61: $369.46 to Yandell Henderson, Yale University, for kymograph. According to the rules, this instrument is the property of the Association, and a brass plate on the instrument so states. An article entitled "Maximum of Human Power," in which are given the results of an extensive study in which this instrument was used of the respiration and energy expenditures of athletics has been submitted to The Journal of the American Medical Association.

Grant 58: $225 to E. B. Krumbhaar, Philadelphia General Hospital, for the study of inguinal granuloma. This work has been completed, the results published, and full account rendered of the expenses.

Grant 59: $225 to F. W. Mulsow, University of Iowa; culture mediums for the gonococcus. This work has been finished, the results are being published, and account has been rendered of all expenses.

Grant 60 and 71: Each grant for $40, to H. M. Evans, Univrsity of California, for study of endocrine glands. The work, now in progress, deals with the hormones in the anterior lobe of the hypophysis.

Grant 62: $150 to A. C. Ivy, University of Chicago; stimulation of gastric secretions by amino-acids and amins. This work has been completed, and the results will be published in the American Journal of Physiology.

Grant 64: $200 to E. R. LeCount, Rush Medical College; tuberculosis and mitral disease. This work is nearing completion.

Grant 65: $300 to L. E. Hines, St. Joseph's Hospital, Chicago; intestinal flora in diarrhea. This work has been completed and the results have been published.

Grant 66: $250 to H. G. Rowell, New Bedford and Columbia University; nutrition studies in children. This work has been completed ,the results are being published, and full account has been rendered of expenses. A refund of $36.76 has been made in the case of this grant .

Grants 67 and 73: $300 in all to Charles E. Simon, Johns Hopkins University, for studies in experimental measles. This work has been completed and the results have been published.

Grant 68: $200 to J. F. McClendon. University of Minnesota, for precision wave meter for use in the study of the electrical conductivity of living cells. According to the rules, this instrument is the property of the Association. A short report on the results obtained has been published in Science, and further work is in progress.

Grant 69: $400 to Linda B. Lange, Johns Hopkins University; diet in experimental tuberculosis. Work in progress.

Grant 72: $250 to V. C. Jacobson, Albany Medical College; implantation adenomas of the pelvic organs. Part of this grant has been used for the purchase of monkeys and other animals for experimental work, the results of which will be learned after several months.

Grant 74: $300 to Thomas Addis, Stanford University; compensatory hypertrophy. The grant is being used largely for casein, lard, cod liver oil and other substances necessary for the food of the large number of rats used in the experiments.

Grant 75: $200 to Victor Burke, State College of Washington; dye treatment of infections. Active work is in progress, with promise of interesting results.

APPLICATIONS ON HAND

The following applications have been received:

For $500, from Harry L. Huber, University of Chicago, to enable him to carry on a study of the chemistry of pollens, for the purpose of determining the chemical elements concerned in hay-fever and similar processes.

For $500, from Arthur M. Yudkin, New Haven, Conn., toward an experimental study on the formation of cataract and related ocular changes, the money to be used for the purchase of animals, food and technical assistance. This work will be carried out in the laboratories of Yale University.

For from $250 to $400, from A. W. Meyer, Stanford University, to aid in a study of polyneuritis in guinea-pigs caused by special diet.

FINANCIAL STATEMENT

Balance to credit of committee, Jan. 1, 1924	$ 900.04	
Appropriation for 1924	2,000.00	
		$2,900.04
Refund, H. G. Rowell, Grant 66	$ 36.76	
Refund, R. A. Spaeth, Grants 55, 63 and 70	144.52	
		$ 181.28
		$3,081.32

GRANTS PAID IN 1924

Grant 62, A. C. Ivy, balance	$ 100.00
Grant 64, E. R. DeCount	175.00
Grant 68, J. F. McClendon	200.00
Grant 69, Linda B. Lange	400.00
Grant 70, R. A Spaeth	200.00
Grant 71, H. M. Evans	400.00
Grant 72, V. C. Jacobson	250.00
Grant 73, Charles E. Simon	200.00
Grant 74, Thomas Addis	300.00
Grant 75, Victor Burke	200.00
	$2,425.00
Balance to credit of committee	656.32
Grant 39, E. O. Jordan, unpaid balance	400.00
Unallotted balance	$ 256.32

RETROSPECT AND COMMENTS

The first appropriation by the Trustees of the American Medical Association to aid scientific research was made in 1903. Annual appropriations have been made each year since about that time, except in the years 1915, 1916 and 1917. The amount appropriated each year has risen from $500 at first to $2,000 for 1924, and the total amount appropriated since 1903 is approximately $17,000. The money has been used for grants in aid of medical research, and especially in aid of meritorious work that otherwise might not have been undertaken. In all, seventy-five grants have been made in sums of from $50 to $1,000, in most cases of from $200 to $300. It is gratifying that, without exception, the grants can be said to have been used to good advantage, as shown in the preceding complete record of grants. In each instance the work undertaken has been carried out at least to the extent that results worthy of publication in standard medical journals have been obtained. Undoubtedly the resulting benefits, direct as well as indirect, fully justify the expenditures. In only one instance has a grant been canceled, and this was done before the grant had been paid and at the request of the grantee.

In conclusion, it may be pointed out that the eight applications granted this year (Grants 68 to 75) represent about one-half of the applications received, and that several meritorious applications had to be refused for lack of funds. In all these cases, the money is being used for special assistance, supplies and equipment; in no case for the salary of the worker.

COMMITTEE ON SCIENTIFIC GRANTS

G. N. Stewart, Cleveland, term expires 1925.
Ludvig Hektoen, Chicago, Chairman, 1926.
C. C. Bass, New Orleans, 1927.
Charles A. Frazier, Philadelphia, 1928.
Noble Wiley Jones, Portland, 1929.

Respectfully submitted,

Ludvig Hektoen, Chairman,
Committee on Scientific Grants.

BUREAU OF HEALTH AND PUBLIC INSTRUCTION

This bureau is turned to for information, advice and educational material by many organizations, groups and individuals, both medical and lay. State and county medical societies throughout the United States have promulgated plans for carrying instruction to the general public, and the bureau has endeavored to assist these organizations in these important movements. The demands that have been made for certain kinds of educational material have been greater than could be supplied, but plans have been laid and are now in process of execution whereby the bureau will be enabled in the future to meet such demands more satisfactorily.

EXHIBITS

Important work in the dissemination of public health information can be done through exhibits installed at the meetings of scientific and of lay organizations, at expositions and at other places where the public is reached in great numbers. It is intended that the bureau shall accumulate material of this kind as speedily as its facilities will permit.

Exhibits of pamphlets, posters and charts from this bureau, the Council on Medical Education and Hospitals, and the Bureau of Investigation were made during the year as follows: At the annual meeting of the Superintendents' Section of the National Education Association in Chicago; at the National Congress of Parent-Teachers' Association in St. Paul; at the Minneapolis Health Exhibition in Minneapolis; at the annual session of the American Medical Association in Chicago; at the annual meeting of the American Hospital Association in Buffalo, and at the annual meeting of the American Dental Association in Dallas. Material has been provided also for exhibits under the auspices of county medical societies and other organizations.

PRINTED MATERIAL

The use of printed matter for the education of the public is constantly increasing. The pamphlets and leaflets of the American Medical Association issued under the direction of the Bureau of Health and Public Instruction were distributed during the year 1924 to the number of 323,182, which represents an increase of 35.4 per cent over the distribution in 1923. New pamphlets have been made available as reprints from Hygeia to the number of sixteen, all but four of which were printed in 1924. Others will be added as the demand may be made apparent for them, and some of the pamphlets that have been circulated in the past will be replaced by new ones, most of which will first be in Hygeia.

RADIO BROADCASTING

Broadcasting of readings from Hygeia was continued monthly during the year from Station KYW, Chicago. Arrangements have been made through the secretaries of county medical societies in eight of the largest cities for similar broadcasting through radio stations in these cities.

PERIODIC HEALTH EXAMINATIONS

Continued effort has been made to promote periodic health examinations by practicing physicians. There has been a steady growth of interest in this movement, as has been shown by the increasing demand for examination forms and for copies of the original report prepared by the Council on Health and Public Instruction. This demand has come almost wholly from individual physicians and not from county medical societies. Comparatively few of these societies have taken up this subject in the manner suggested in the original resolutions passed by the House of Delegates at St. Louis. Some county societies, however, have done splendid work in this direction, and have succeeded in arousing a very active interest among their own members, which has naturally extended to the public whom they serve. The examination forms that have been printed by the Association and distributed through this bureau have not been altogether satisfactory to some county societies, nor to some individual physicians. This form was not expected to be universally received as altogether acceptable, but was issued with the hope and expectation that it would meet the needs of the average physician who might be called on by his clientele to make periodic examinations. The original report, in the nature of a very brief manual on periodic examinations, has met with a rather large distribution, more than 15,000 having been distributed during the year 1924. It has been supplanted by a larger manual prepared under the direction of a committee consisting of Doctors Isaac Abt, Joseph A. Capps, Charles E. Elliott, Haven Emerson, Joseph L. Miller, Alfred E. Shipley, Alec N. Thompson and Ana Mann Richardson, for whose work most grateful acknowledgment is hereby made. It is hoped taht this larger manual will prove to be helpful to the physicians of the country.

HEALTH EDUCATION

The activities of the joint committee on health problems and education, representing the American Medical Association and the National Education Association, have been continued. The most recent and extensive report of this committee is entitled Health Education—A Program for Public Schools and Teacher Training Institutes. At the recent meeting of the joint committee at Cincinnati, additional work of importance was planned, including the publication of two reports, one on Ventilation and Heating, and one on the Conservation of Vision. It is proposed that the bureau shall continue as vigorously as possibly its co-operative work with the National Educational Association.

CO-OPERATION WITH COUNTY AND STATE MEDICAL SOCIETIES

While this bureau has given such aid as it could to the plans of county medical societies and of state medical associations in connection with their own activities for the proper instruction of the public, it is hoped that in the future considerably more aid may be rendered to these organizations. The bureau proposes to extend its activities as speedily as possible and to continue this co-operation by:

(a) Securing and exchanging information as to what various agencies are doing.

(b) Encouraging other medical societies to engage in this propaganda.

(c) Arranging, when possible, for national conferences of representatives of medical societies engaged in health activities.

(d) Aiding county societies and other organizations by providing for the supply by sale or rental of bulletins and abstracts for public addresses on health topics.

(e) Providing in a similar manner illustrated material, charts, posters and lantern slides.

(f) Securing and disseminating information about usable moving picture films on hygiene and allied subjects.

One session of the Annual Congress on Medical Education, Medical Licensure, Public Health and Hospitals was devoted to a program arranged by the Bureau of Health and Public Instruction on the general topic, The Medical and Health Education of the Public.

THE BUREAU OF LEGAL MEDICINE AND LEGISLATION—NATIONAL PROHIBITION ACTS

The matter of the medical use of alcohol came before the Board of Trustees under a resolution adopted by the House of Delegates in 1924, as follows:

RESOLVED, That the House of Delegates of the American Medical Association expresses its disaproval of those portions of the National Prohibition Acts which interfere with the proper relation between the physician and his patient in prescribing alcohol medicinally; be it further

RESOLVED, That the House of Delegates of the American Medical Association instruct the Board of Trustees to use its best endeavor to have repealed such sections of the National Prohibition Acts as are in conflict with the above resolution and also use their best endeavor to have the Commissioner of Internal Revenue and the Prohibition Commissioner issue revised instruction on the use of the prescribing of alcoholic liquors for medicinal purposes by physicians.

To carry the foregoing resolution into effect, Dr. Woodward drafted a bill, and the Board of Trustees approved it and authorized its introduction into Congress. A canvass of the situation showed that there was no likelihood—it might be said, no possibility—of the passage of the proposed legislation during the then current short session of Congress. Action was suspended, therefore, until a more opportune time, in the belief that any effort to force legislation not only would be unsuccessful, but would react against future efforts.

NARCOTIC LAWS

Ban on Heroin.—February 18, 1924, a bill was introduced into Congress to prohibit the importation of crude opium for the manufacture of heroin. The policy of the Association with respect to this matter had been defined by the House of Delegates at the New Orleans session, 1920, in a resolution approving a report of the committee on the narcotic drug situation, in which the following recommendation was made:

"That heroin be eliminated from all medicinal preparations, and that it should not be administered, prescribed or dispensed; and that the importion, manufacture and sale of heroin should be prohibited in the United States."

In furtherance of this policy, the Board gave active support to this bill. It became a law, June 7, 1924.

Narcotic Survey.—Last June the House of Delegates recommended that a narcotic survey of the United States be made by the United States Public Health Service. The Surgeon General has informed the Board of Trustees, however, that it is impracticable just now to enlarge the narcotic program of the service.

Harrison Narcotic Act.—Efforts to procure the restoration to a peace basis of the war tax imposed under the Harrison Narcotic Act were begun by the Council on Health and Public Instruction as far back as May, 1921. After the creation of the Bureau of Legal Medicine and Legislation, in 1922, they were diligently continued up to the time of the enactment of the Revenue Act of 1924, through which is was hoped to procure relief. Nevertheless, the Revenue Act of 1924 was passed without providing the desired relief. The opposition came, apparently, from the Treasury Department and reached a climax in the recommendation that Congress increase, by a half million dollars a year, the appropriation for the enforcement of the narcotic law, so as to use up the revenue derived from the Harrison Narcotic Act. That recommendation was approved by Congress. The obvious effect is to confuse one of the chief arguments against the continuance of the war tax, namely, that the government is deriving revenue from an occupation tax on the medical profession not paralleled by any similar tax on any other profession. The facts that the personnel of Congress remained unchanged, that no general revision of the Revenue Act was under consideration, and that the last was a "short" session, combined to make it impossible to secure any reduction of the tax imposed on physicians under the Harrison act.

VETERANS' BUREAU

Training of Chiropractors.—The annual report of the Veterans' Bureau for 1923-1924 showed seventy-one veterans in process of manufacture into chiropractors. The World War Veterans' Act, 1924, however, provides that no vocational training shall be granted or continued to any person after June 30, 1926. The waste of government funds for chiropractic training may be expected, therefore, gradually to diminish, and to terminate on the date named.

State Medicine in the Veterans' Bureau.—The World War Veterans' Act, 1924, section 201, paragraph 10, authorizes the director of the Veterans'

Bureau "so far as he shall find the existing government facilities permit, to furnish hospitalization and necessary traveling expenses to veterans of any war, military occupation, or military expedition since 1897, not dishonorably discharged, without regard to the nature or origin of their disabilities: Provided, That preference to admission to any government hospital for hospitalization under the provisions of this subdivision shall be given to those veterans who are financially unable to pay for hospitalization and their necessary traveling expenses."

The medical profession yields to no other body in its desire to see every veteran receive just reward for service rendered during the war. It gladly leaves to Congress the determination of the measure of that reward. The privileges conferred by this legislation are in the nature of such a reward. They are not conferred as a recompence for damage resulting from military or naval service, for they are available for injuries and diseases of all kinds that have not resulted from such service. Neither are they conferred to relieve distress, for equal privileges are granted to the rich and to the poor alike. How illogical it is to make the measure of this reward proportionate, not to the nature and extent of service rendered, but to the extent to which the recipient may chance to suffer from illness and injury altogether independent of his service, it is not necessary to discuss.

Why the government should enter into competition through subsidized physicians and hospitals with physicians and hospitals that are not subsidized, and that depend for their very existence on the patronage they receive from the sick and injured is not apparent. It has not yet authorized hungry, cold and inadequately clothed veterans to draw their supplies from Army and Navy commissary departments, nor has it authorized veterans who are inadequately housed to take up their dwellings on military and naval reservations. Protection from hunger, cold and exposure are as necessary to health and happiness as is medical and hospital care in time of illness and injury; yet the government has not entered into subsidized competition with the grocer, the coal man, the dealer in men's furnishings and the landlord.

The situation may almost be stigmatized as communistic medicine in its most militant form, endeavoring to edge its way into American life under the cloak of patriotism. It merits the most careful consideration of the House of Delegates.

FEDERAL INCOME TAX

Efforts were made to obtain relief through the Revenue Act of 1924 from the ruling of the Commissioner of Internal Revenue denying the professional character of traveling expenses incurred in attending meetings of medical organizations and of the expenses of graduate study. They were unsuccessful. Pending amendatory legislation, redress lies only through the Board of Tax Appeals and the courts. Unfortunately, however, most of the physicians who occasionally complain to the Association of the injustice of the Commissioner's ruling have been unwilling to become parties to test cases to try out the issue, and an appeal cannot taken in a hypothetic case.

MEDICAL DEFENSE

The House of Delegates last June adopted the following resolution:

WHEREAS, It is extremely important that constituent state societies be kept in touch with decisions involving cases of alleged malpractice; be it

RESOLVED, That the Bureau of Legal Medicine and Legislation of the American Medical Association be asked to make and furnish a copy of these decisions to the office of constituent state societies for use by their attorneys.

The decisions named are available in the published court reports, but the cost of manifolding and distributing copies of them would be considerable. Moreover, abstracts of them are now published in the Medicolegal Notes of The Journal. It has seemed impracticable, therefore, to undertake the work called for by the resolution without drawing unduly on the resources of the Association.

MEDICAL PRACTICE ACTS

Since the last meeting of the House, the usual efforts have been made by the various groups of sectarian healers to enlarge the breadth of their activities and to establish themselves in new fields. They have been generally unsuccessful. On the other hand, unfortunately, efforts to strengthen our medical practice acts have been met with but little better success. As this report goes to press some important legislation in both of these fields is still pending in the legislatures remaining in session.

The Bureau of Legal Medicine and Legislation has had a great amount of correspondence with state associations and many interviews with their representatives regarding legislation of this character. General policies have been discussed, methods of procedure have been pointed out, drafts of proposed and of pending bills have been analyzed and criticized from a legal standpoint, and practical services rendered in connection with such legislation and with the enforcement of medical practice acts now in force. It is hoped that such efforts have proved helpful to the state associations in proportion to the time and thought devoted to the problems submitted. The results of such efforts are not always apparent on the face of the advice given.

Model Medical Practice Act.—The drafting of a model medical practice act has been discused by the Association since 1908. Some work has been done in the past and is still being done toward the desired end. To draft such a bill would be a comparatively simple matter if no bill within this field had ever been enacted. Now, however, many laws must be studied in the light of a multiplicity of court dicisions interpreting them, if the draftsman would avoid the pitfalls of his predecessors. It is hoped, however, that the work that is being done will result within reasonable time in something tangible for consideration by our state associations.

PROTECTION OF MEDICAL RESEARCH

The Society of Friends of Medical Progress, Inc., which received the approval of the House of Delegates in June last, has been reorganized as the American Association for Medical Progress, Inc. The purposes and plans of the organization have not been altered. It may be well, in order to make the record clear, for the House of Delegates to adopt a resolution endorsing the American Association for Medical Progress, Inc., under that name.

LYE LEGISLATION

The Bureau of Legal Medicine and Legislation in the efforts authorized by the Association to procure the enactment of laws requiring proper labeling of household packages of lye and other corrosive substances . Since our last report, laws to accomplish that end have been enacted in Louisiana, Oregon, South Carolina and Vermont. The federal lye bills were not reported out of committee, and lapsed with the adjournment of Congress, March 4, last.

COSMETICS, HAIR DYES AND DYED FURS

In June last, the House of Delegates adopted a resolution, the gist of which is as follows:

RESOLVED, That the Section on Dermatology and Syphilology, through its regularly appointed Executive Committee, urgently recommended to the favorable attention of the American Medical Association (1) that they foster legislation placing cosmetic preparations under the Food and Drugs Act, and especially requiring the placing of the names of all poisonous ingredients on the labels; (2) that they foster legislation prohibiting the use of the most harmful types of ingredients in cosmetics; (3) that they foster legislation to prohibit the use of paraphenylendiamin as a dye for hair and fur; and that the American Medical Association urge laws with criminal liability to enforce the recognition of these demands.

To establish the framework for the proposed legislation, the chairman of the Section on Dermatology and Syphilology, at the request of the Board of Trustees, has appointed a technical committee to co-operate with the Bureau of Legal Medicine and Legislation in its activities under the foregoing resolution. It would be idle to undertake to procure the enactment of such legislation without evidence to show the nature and extent of the danger to be removed and without knowledge of existing laws that might possibly be applied to effect that end.

REORGANIZATION OF FEDERAL HEALTH ACTIVITIES

The long continued labors of the Congressional Joint Committee on the Reorganization of the Executive Departments culminated, June 3, 1924, in the introduction of bills into the Senate and House of Representatives, each entitled "A Bill to Provide for the Reorganization and More Effective Co-ordination of the Executive Branch of the Government to Create the Department of Education and Relief and for Other Purposes." In some fields of executive activity, something in the nature of reorganization was proposed, but so far as health activities are concerned, the bill seemed likely to destroy rather than to build up. Protests were made through the editorial columns of The Journal and through our constituent associations. In the end, Congress adjourned without having acted on this measure.

MISCELLANEOUS LEGISLATION

Our constituent associations are reminded of the advisability of the Bureau of Legal Medicine and Legislation to help them in their legislative and legal problems. Some associations already submit their more important problems for consideration and advice in advance of the convening of their state legislatures. This permtis more deliberate study of them than is possible when they come in during the legislative season. Constituent associations are urged to file with the bureau copies of bills and reports submitted to the legislature, and of laws enacted, so that they may be used in studying similar legislation as it arises in other states.

With a view to laying a foundation for the future work, the Bureau of Legal Medicine and Legislation is making an effort to obtain complete court records of court cases of special interest to the medical profession. In such work, there has been every evidence of willingness on the part of the state and county associations and of individual members of such associations to co-operate. Such records on file in Chicago will be available for all state associations and all members. The board urges continued co-operation in this work.

APPROPRIATIONS FOR RESEARCH—SURVEY OF MEDICAL EDUCATION—EXTENSION OF HOSPITAL SERVICE

The Board of Trustees has for a number of years been making appropriations for research. These appropriations are expended under the direction of the Committee on Therapeutic Research, a subcommittee of the Council on Pharmacy and Chemistry, and a Committee on Scientific Research. The reports of these two committees are made a part of the report of the Board.

An appropriation of $3,000 was made at the February meeting of the Board for the purpose of a co-operative survey of medical education in the United States, to be undertaken jointly by the medical schools of the country, the Council on Medical Education and Hospitals of the American Medical Association, the Association of American Medical Colleges, and other organizations and institutions interested in the many problems of medical education which are presenting themselves and demanding careful study. This survey will be made in a very thorough manner, and will be continued over as long a period as may be necessary to secure all the facts that should be accumulated by such an enterprise.

The Board also continued the annual appropriation which has been made for several years for the benefit of the Hospital Library Service.

COMMITTEE TO CO-OPERATE WITH BUREAU OF INDIAN AFFAIRS

In compliance with the terms of the resolution adopted by the House of Delegates at the Chicago Session, the Board of Trustees appointed the following committee to co-operate with the Bureau of Indian Affairs and the Department of the Interior in the work undertaken by that bureau to reduce the prevalence of trachoma among the Indian tribes: W. H. Wilder, Chicago; Arnold Knapp, New York, and William C. Posey, Philadelphia.

GRADUATE EXTENSION WORK

Diligent effort has been made to perfect the necessary organization for carrying out the plans for offering courses of clinical instruciton to members of county societies, as proposed to this house at the last annual session. It has not been possible, however, to secure instructors of the type desired; moreover, prospective cost of the enterprise, conducted in the manner that will yield desired results, is larger than the amount of money that, in our judgment, can be safely appropriated for the purpose at this time. The plans for graduate extension work are therefore held in abeyance, with the hope that at some time in the reasonably near future they may be put into effect. The Board of Trustees has in no manner changed its position with respect to the importance of this undertaking nor as to the desirability of carrying it out.

Several state medical associations have already initiated activities of this nature. It may be that this particular work of carrying clinical instruction to members of county societies is more the function of the state association than of the national organization. However that may be, those state associations which have already initiated such programs are to be highly commended for their enterprise as well as for their evident purpose to make constructive helpful contribution for the professional benefit of their members generally. It is hoped that a way will soon be found by which the American Medical Association can, by supplementing the effort of its constituent associations, become actively helpful in providing clinical instruction for its members who cannot avail themselves of the facilities offered in medical centers far removed from their homes.

DONATION FOR RESEARCH

The Board has received, and has officially accepted, a donation of $1,140 from Dr. R. O. Raymond, Flagstaff, Ariz. In making this gift, Dr. Raymond made no conditions other than that the money should be used for scientific research in accordance with the best judgment of the Board of Trustees. He has suggested that the name of Charles A. Brant be associated with the gift, which has therefore been designated the Charles A. Brant Fund.

ELECTIONS

The election of members for the Council on Pharmacy and Chemistry, for the editorial boards of the several special journals, and for standing committees resulted as follows:

Council on Pharmacy and Chemistry.—Doctors G. W. McCoy, F. G. Novy and George H. Simmons were elected to succeed themselves; Dr. Morris Fishbein, Editor of The Journal, was elected to serve as the seventeenth member.

Editors of Special Journals.—Doctors George Doc of Pasadena, W. A. Pusey of Chicago, Dean Lewis of Chicago, 9. W. Taylor of Boston and Oscar M. Schloss of New York were reelected on the editorial boards of the Archives of Internal Medicine, Archives of Dermatology and Syphilology, Archives of Surgery, Archives of Neurology and Psychiatry and the American Journal of Diseases of Children, respectively.

Committee on Protection of Medical Research.—Dr. Simon Flexner of New York was reelected.

Committee on Scientific Research.—Dr. Martin H. Fischer of Cincinnati was elected to succeed Dr. G. N. Stewart.

FOOT AND MOUTH DISEASE

The following resolutions are presented for the consideration of the House of Delegates, at the request of Dr. R. R. Ferguson, secretary of the American Medical Milk Commissions, and with the approval of this Board:

WHEREAS, An epidemic of foot and mouth disease occurred in California in 1924, resulting in the slaughter of more than 108,000 animals, at a cost to the state of California, the United States government and the owners of the flocks and herds destroyed of approximately $5,000,000; and

WHEREAS, This was the seventh epidemic of foot and mouth disease recorded in the United States; and

WHEREAS, The danger attendant on an epidemic of the disease in this country makes the destruction of infested flocks and herds the only safe method to pursue and prevents a systematic study of the nature of the disease; therefore be it

RESOLVED, That the American Medical Association join with the American Association of Medical Milk Commissions in an effort to have the Department of Agriculture, through proper sources, appoint a commission to study foot and mouth disease at its source, either in South America or in Europe, where it is always present, with a view of discovering some more effective and economic means of combating the disease; and be it further

RESOLVED, That a copy of these resolutions be sent to the Department of Agriculture, together with resolutions of a similar nature from the American Association of Medical Milk Commissions, the American Veterinary Associations and other organizations interested in this important subject.

THE STATUS OF THE ASSOCIATION'S BUSINESS AFFAIRS

The constant expansion in the activtiies of the councils, bureaus and departments of the American Medical Association and the growth and improvement of its scientific publications, together with the necessary additions of physical equipment and the required increase in personnel, necessitated the enlargement of its plant in Chicago. The building owned by the Association, which houses its officers and its mechanical plant, has been doubled in size. This means, of course, a large increase in maintenance costs of all kinds. Whereas a little more than a year ago only two elevators were needed, four are now contsantly in use; the cost of lighting and heating has increased in proportion to the enlargement of the building; the increased value of the building and equipment have necessitated additional insurance. The equipment of the printing plant has been added to in keeping with the policy of the Association to maintain a first class printing department. The work of the various councils and bureaus has constantly expanded, necessitating an enlarged payroll and salary list. The publication of a journal for the lay public, as was expected, has required a very considerable annual outlay. Special publications of the Association, which represent a distinct service for the benefit of the medical profession and which cannot well be rendered by any other agency, the extension of library service, the enlargement of the Chemical Laboratory and the development of its work, have all necessitated increased expenditures. At the last session of Congress a new postal rate law was enacted, under the provisions of which the cost of mailing The Journal alone will amount to approximately $8,800 annually. Final disposition of the question of postal rates has not yet been made. A committee of Congress is studying all the problems involved, and will submit a report at the next session which may call for further changes in rates under which the mailing cost of the Association's publications will be considerably enhanced. There will also accrue increased mailing costs on account of other publications of the Association, as well as in some other classes of postal matter . During the current year a new cylinder press, already contracted for, will be installed, requiring an outlay of approximately $54,000. Old machinery and equipment will have to be replaced with new as necessity demands.

The income of the Association is principally secured from subscriptions, Fellowship dues, and advertising receipts. It has been the policy of the Board of Trustees and the administrative officers of the Association to maintain all its products on the highest possible plane of excellence. Economies have been effected whenever and wherever possible, provided no hurt would result to the quality of products. Liberal appropriations have been made for the use of the councils and bureaus in carrying out the helpful work which they have undertaken in the interest of the profession and the public. It has been the policy of the Board of Trustees also to maintain subscription prices of the Association's publications at the lowest figure compatible with the production of meritorious periodicals. A year ago, in the face of increasing costs of operation and expanding activities, the subscription price of The Journal was reduced from $6 to $5 a year. An examination of the financial statements, which are made addenda to this report, will reveal that the net gain from all sources for the year 1924 is very much smaller than for a number of years. As a matter of fact, except for interest received on money permanently invested in fixed surplus funds and approximately $3,000 on miscellaneous accounts, there was no net income.

The surplus and reserve funds of the Associa-

tion have been accumulated and maintained in an amount believed to be necessary for financial safety .There is no desire on the part of the officers or members of th Association that its activities shall result in the accumulation of money. The Board of Trustees, mindful of this fact, has earnestly endeavored to use all income above that necessary to meet basic expenses and to conduct the affairs of the Association in a businesslike manner in extending its services to its members and to the public. The scientific publications of the Association, its miscellaneous publications, and the work that it has done through its councils and bureaus all speak for themselves.

The Board of Trustees has not hesitated to cooperate financially or otherwise in any progressive movement which it believed to be for the advancement of scientific medicine or for the promotion of the welfare of the medical profession.

The American Medical Association is a sound cern, but it is not, as some seem to have conceived, an institution that has unlimited resources. The record which it has made in its service to humanity demands that its future activities shall be carried out on broad lines and altogether in keeping with the ideals that have governed its course heretofore. There can be no standing still. There must be expansion and intensification of effort, and the Association must at all times be in position to meet as promptly and as practically as possible all demands that can be rightfully made on it. This means, of course, that the Association must be insured an income that will provide for the maintenance of its legitimate activities, and to meet any emergencies that may arise.

ADMINISTRATIVE PERSONNEL

The work of the administrative personnel of the Association has been characterized by a splendid spirit of loyalty and co-operation. The efficiency with which the Association's affairs have been administered has constituted a tribute to the genius and to the devoted service of Dr. George H. Simmons, who for twenty-five years was the chief executive officer of the Association, and to the faithfulness of the administrative personnel which he gathered about him.

W. T. Williamson,* Chairman.

J. H. Walsh, Secretary.	J. H. J. Upham.
Thomas McDavitt.	E. B. Heckel.
A. R. Mitchell.	W. A. Pusey
D. Chester Brown.	W. D.Haggard
Oscar Dowling.	F. C. Warnshuis
Charles W. Richardson.	Ex Officio.

REPORT OF THE JUDICIAL COUNCIL

Dr. M. L. Harris, Illinois, Chairman, presented the report of the Judicial Council, which was referred to the Reference Committee on Reports of Officers:

To the Members of the House of Delegates of the Medical Association:

The Judicial Council held its regular annual meeting in Chicago, November 17, 1924, at which time it disposed of such business as had been submitted. In the interim all matters which have been presented to the Council of such nature as could be satisfactorily handled through correspondence have received prompt attention, while those which could not be so attended to are now under consideration by the Council and will be acted on in the regular manner.

A great many communications have been addressed to the Council during the year, but the volume of these has not been as great as for the two or three preceding years. The Council is disposed to see in this fact encouragement for believing that its consistent policy of trying to have all questions of a local nature concerning medical conduct and organizational affairs referred to and considered by the proper agencies of the societies of original jurisdiction is beginning to produce desired results. In the opinion of the Judicial Council, it is important that the county society and the state association deal originally with all questions of conduct, organization and discipline which concern their individual members or which concern these societies and associations as such. The Council, however, desires to reiterate its willingness to assist the constituent and component units of the American Medical Association and the individual members thereof in any way possible in handling such matters.

PATENTS AND PERQUISITES

Section 5 of Article I, Chapter II of the Principles of Medical Ethics reads as follows:.

PATENTS AND PERQUISITES

It is unprofessional to receive remuneration from patents for surgical instruments or medicines; to accept rebates on prescriptions or surgical appliances, or perquisites from attendants who aid in the care of patients.

Inquiries are constantly coming to the Council concerning the various questions involved in the issuance of patents to physicians. This whole subject is now being studied by the Council and a report will be made to the House of Delegates at the next annual session if, in the opinion of the Council, any amendment of the Principles of Medical Ethics is demanded in this connection.

PERIODIC HEALTH EXAMINATIONS BY LAY ORGANIZATIONS

At the last annual session of the Association, held in Chicago, the Judicial Council presented to the House of Delegates a supplementary report dealing with the specific question: Shall the medical profession vend its products directly to the consumer or shall it sell them to a middleman or third party This question was discussed in the report of the Council from the standpoint of the independence of the physician, the interest of the individual patient, the encouragement of medical progress, and from the standpoint of what is best for the public. The conclusion of the Council, which was endorsed and accepted by the House of Delegates, was to the effect that the proper person to make periodic examinations and to give advice relative thereto is the family physician, aided when necessary by local specialists; and that indirect medical service through a third party could not redound to the benefit either of the public or of the physician. In submitting that report to the House of Delegates, neither the Council as a whole nor any individual member of the Council was guided by any motive other than a desire to bring the questions considered in the report directly to the attention of the members of the American Medical Association and its duly elected delegates, in the hope that the best interests of the medical profession and of the public served by its members might be conserved. It was the purpose of the Council to discuss fundamental principles ,and its supplementary report was offered on this basis. It was not the purpose of the Council to call into question the honesty or the sincerity of purpose of any person or group.

The Judicial Council desires to express again its firm conviction that the benefits of scientific medicine cannot be adequately delivered to the individual through the medium of a third party, and that the communication of results of physical examination and the general advice with which it should be associated should go directly from the

individual physician to his patients. As was stated in the report of the Council submitted at the Chicago session, the relation between the patient and the physician is an individual matter, and anything that disturbs this relationship is detrimental to the best interests of the patient.

SUPPLEMENTARY REPORT

If the Council can find opportunity to give proper consideration to some pending matters, it will present a supplementary report to the House of Delegates during this session.

M. L. Harris, Chairman.
W. S. Thayer. J. N. Hall.
I. C. Chase. F. W. Cregor.
Olin West, Secretary ex officio.

REPORT OF THE COUNCIL ON MEDICAL EDUCATION AND HOSPITALS

Dr. Arthur Dean Bevan, Illinois, Chairman, presented the report of the Council on Medical Education and Hospitals, which was referred to the Reference Committee on Reports of Officers:

To the Members of the House of Delegates of the American Medical Association:

The present report of the Council makes reference to (1) medical education; (2) present supply of physicians in the United States; (3) graduate medical education; (4) hospital service, and (5) miscellaneous items that have been referred to the Council for decision.

1. MEDICAL EDUCATION

There are now eighty medical schools in the United States, one more than last year, the one added being the new medical school of the University of Rochester, N. Y. Eighty medical schools is the largest number in any of the civilized nations, and is one-fourth of the world's supply. In 1924, this country had 160, which was more than half of the world's supply. The reduction was due mostly to mergers whereby in each and many cities one invariably better college was formed by the union of two or more poorer institutions. At present sixty-three, or 78.7 per cent, of the medical schools are actually departments of universities, as compared with only thirty-six, or 22.5 per cent, in 1904. In 1906, about forty of the medical schools were without either laboratories or clinics, the instruction was didactic, and the faculties consisted of from one to five teachers each. Less than sixty of the 160 institutions possessed hospital facilities by which even a fair percentage of clinical instruction could be carried on. The remainder had neither teaching hospitals nor access to others where hospital patients could be used other than occasionally in amphitheater clinics. Less than half of the schools had outpatient departments or dispensaries wherein teaching clinics could be held with any regularity. Now, in contract, thirty-four of the seventy medical schools teaching the clinical subjects have their own teaching hospitals, and thirty have access to other hospitals by which satisfactory clinics are being regularly held. Instead of the majority of medical schools being small, poorly equipped institutions with inadequate faculties and no developed curriculums, now sixty are well developed medical schools with adequate faculties, laboratories and hospitals, and ten others are well developed for the first two years of the medical course. There are now about thirty medical schools, each of which has a group of buildings and a campus as large as or larger than those of the average university, and this number is increasing.

In 1904, less than thirty of the 160 medical schools required as much as a four year high school education for admission; now, in seventy-five of the eighty medical schools the minimum requirement is two years of college work. This requirement is not unreasonably high, but is merely a belated adoption in the United States of the standards long since required in other parts of the civilized world. In countries abroad the entrance requirement to medical schools is completion of the secondary school course, which, however, is equivalent to one and one half or two years of college work in the United States; and the graduate of the secondary schools of Europe are usually granted that amount of credit toward the baccalaureate degree in colleges of this country.

STUDENT ENROLLMENT

The higher entrance requirements are not preventing students from entering on the study of medicine, and the total enrollments since 1919 have been increased at the rate of about 1,000 students a year. The enrollment in 1925 was approximately 18,368, the largest number enrolled since 1912. Instead of only 640 medical students enrolled in 1904 in medical schools whose basic requirements were two years or more of college work, in 1924 there were 17,358 students in these better institutions. The average enrolment in each college is now 230 students, as compared with only 174 in 1904. The capacity of each Class A college on the average at present is 317, and recent reports state that with certain additions or modifications this capacity can be further increased, if necessary, to 386.

MEDICAL SCHOOL GRADUATES

With the changes in medical education between 1904 and 1919, a reduction in the number of both students and graduates was expected. Readjustments under the newer conditions were rapidly made, however, so that both enrolments of students and the numbers of graduates are again rapidly on the increase. As shown in the accompanying chart, the increase in the number of graduates in the five years from 1922 to 1927[1] is about equal to the decrease in the fourteen years between 1908 and 1919. Here, again, instead of only thirty-six graduating from the average medical college in 1904, this year the average will be about fifty,

TABLE 1.—ENROLMENTS OF MEDICAL STUDENTS FOR FOURTEEN YEARS, SHOWING VARIATION IN NUMBERS BY CLASSES

College Session	Freshmen	Sophomores	Juniors	Seniors	Totals
1911-1912	0,048	4,063	4,294	4,759	18,412
1912-1913	4,564	4,093	3,639	4,444	17,015
1913-1914	4,684	3,981	3,807	3,955	16,502
1914-1915	3,373	3,919	3,675	3,864	14,891
1915-1916	3,582	3,094	3,559	3,727	14,022
1916-1917	4,107	3,117	2,866	3,674	13,764
1917-1918	4,283	3,521	2,893	2,933	13,630
1918-1919	3,104	3,587	3,272	2,967	12,930
1919-1920	4,234	2,837	3,464	3,263	13,798
1920-1921	4,825	3,588	2,637	3,416	14,466
1921-1922	5,412	4,219	3,355	2,649	15,635
1922-1923	5,162	4,615	3,861	3,322	16,960
1923-1924	5,160	4,441	4,330	3,797	17,728
1924-1925*	5,456	4,502	4,311	4,162	18,368

*Estimate.

The lowest ebb of enrolment in the respective classes during the general reorganization of the medical schools is shown by the figures underscored by the solid line. The broken line is under the figures showing a temporary diminution due to the World War. The total number of students enrolled has steadily increased since 1919, and the present total is nearly equal to that of 1912.

1. The fifures for 1925, 1926 and 1927 are estimated.

and it is estimated that the average will be further increased to approximately seventy-five by 1927. These increases in the numbers graduating, it must be recalled, represent those who have received a better foundation, both in general and in professional education.

TABLE 2.—QUANTITY VS. QUALITY

	Two Years of College Work		High School or Less		
	Number	Per Cent	Number	Per Cent	Total
Medical Colleges:					
1904	2	1.3	158	98.7	160
1924	75	93.7	5	6.3	80
Students:					
1904	640	2.3	27,502	97.7	28,142
1919	12,552	91.7	500	3.8	12,930
1924	17,358	98.0	370	2.0	17,728
Graduates:					
1904	178	3.1	5,569	96.9	5,747
1922	2,347	92.8	182	7.2	2,529
1924	3,458	97.0	104	3.0	3,562

MEDICAL CURRICULUM

It was the great improvements, whereby more complete and satisfactory courses of instruction were being offered by medical schools, that created the later problem regarding the medical curriculum. Formerly, the importance of many subjects now included in the medical curriculum had not been recognized; but, as the value of such instruction became apparent, they were added to the curriculum. The result eventually was a badly crowded curriculum. Measures for readjusting and the proper correlation of courses are already in process, not only to eliminate duplication of courses, but also, if possible, to enable the student to get a satisfactory understanding of the essential facts in less time. This problem has not been unseen or ignored since the revision of the medical curriculum has been the main topic of discussion in conferences on medical education for the last four or five years. The fact that the curriculum needs revision, however, is a matter of congratulation, since between 1900 and 1910 there was in the majority of schools no curriculum to revise. A special commission was created in 1923, which is making a careful study of this problem.

LIMITATION OF ENROLLMENTS

The reduction in the number of medical schools would have been serious had it not been for the greatly enlarged plants and the increased capacity of the institutions during the reorganization. Hence, the medical schools have been able to provide space for all qualified students, even with the unprecedented crowds of medical students seeking admission since the World War. The increased numbers made it necessary, however, for medical schools to limit the numbers of students enrolled in order to guarantee them efficient instruction. Most of the medical schools fixed for their limitations numbers of students larger than what they had enrolled up to that time. The limitation of the study body by a medical school had its usual psychologic effect in stimulating the desire of individual students to get in before the lists were closed. These barriers caused more or less difficulty, since the student had to apply to or even matriculate in several institutions in order to insure enrollment in a medical school of his choice. This duplication made the number of applicants appear to be larger than was actually the case. This led to the statement that "many students were turned away"; (more students were turned away than were previously enrolled," or other like announcements. These statements were widely published in the newspapers, and the situation was greatly exaggerated. Surveys by the Council during the last several years have invariably shown that vacancies were still found in Class A medical schools after the enrollments were completed. At no time has the utmost capacity in the Class A medical schools been reached.

INCREASING CAPACITY OF MEDICAL SCHOOLS

Although the present enrollment in all medical schools is given as 18,368, it was reported also that 1,355 vacancies still remain, which would make a total capacity of 19,923. In Class A medical schools alone this capacity is given as 19,000. The few hundred students, therefore, who enrolled in Class B and C colleges could have entered Class A medical schools if their qualifications were adequate. The Class A medical schools report that with additional teachers, enlarged laboratories, increased clinical material or the subdivision of classes, the enrollments could be further increased, providing room for 5,000 more students than are at present enrolled. The present number of medical schools is ample, therefore, to provide for all increases in enrollments for several years.

2. PRESENT SUPPLY OF PHYSICIANS IN THE UNITED STATES

As shown by Chart 1, in 1900 the highest number of medical colleges had been reached—more than half the world's supply—and the largest numbers of graduates were being turned out—numbers out of all proportion to the increase in population of the country. The United States was oversupplied, therefore, with both medical schools and physicians . There were then 160 medical schools, which in 1904 turned out 5,747 graduates. On the other hand, in 1920, the reduction had reached the lowest point, presenting an extreme opposite to that of 1900. There were then eighty-five colleges, and in 1922 only 2,529 physicians were graduated. The census returns of these two decades, presenting as they do the opposite extremes, should be averaged, therefore, in order to obtain an accurate idea regarding the normal supply of physicians for the United States. The average of these two extremes places the figures at approximately 4,000. Because of the rapid increase in the number of graduates since 1922, as shown in Chart 2, the census returns for 1930 will show a return to at least a normal supply of physicians in proportion to population.

3. GRADUATE MEDICAL EDUCATION

In 1916, 1919 and 1923, three complete inspections of all graduate medical schools were made by the Council on Medical Education and Hospitals, and the conditions were found to be far from satisfactory. Many of the institutions were granting pretentious, diploma-like certificates to those who had paid fees and enrolled for courses, some of which extended over only one or two weeks. Little or no record was made as to whether or not the physician actually attended the course for which he was registered. By 1923, through the suggestions given out during the previous inspections, many, but not all of the postgraduate medical schools had discontinued the granting of certificates excepting for courses of six months or longer in duration.

In 1920, in order to secure a basis for the approval of graduate work, the Council appointed fifteen special committees to recommend what preparation was deemed essential to secure expertness in each of the fifteen specialties to which they were assigned . The report of these committees was presented at the Council's conference in 1921[2] and reprints of the report were sent to the officers o fall graduate medical schools.

Following the inspection in 1923, the "Principles Regarding Graduate Medical Education" were prepared, were read at the Conference in March, and were included in the report to the House of Delegates in June, 1923. These principles provided

for admission requirements; records; supervision; curriculum; graded instruction; qualified teachers;

2. The several fields of clinical specialization that were studied are shown in the following list. The minimum years designated after each subject represent what were considered by the committees as essential to insure efficiency in the specialties:

Field	Years Essential
(a) Surgery, general	3
(b) Surgery, orthopedic	3
(c) Surgery, genito-urinary	3
(d) Gynecology and obstetrics	3
(e) Ophthalmology	2
(f) Otolaryngology	2
(g) Internal medicine	3
(h) Pediatrics	3
(i) Neuropsychiatry	3
(j) Dermatology	2
(k) Public health and hygiene	2

properly equipped laboratories; library and museum facilities; essential hospital and outpatient material; annual announcements and regulations in regard to the granting of degrees or diploma-like certificates. Reprints containing these principles were sent to all graduate and post-graduate medical schools in March, 1923.

On the basis of these principles, a list of graduate medical schools was prepared which the Council considered worthy of approval. Of the thirty-five institutions investigated, fifteen were at once admitted to the Council's approval list and eighteen have since been added, making a total of thirty-four approved graduate schools at the present time. To the list, also, has been added sixteen special hospitals which provide approved higher internship or residencies in various specialties. For admission to these residencies the graduate must have already completed an internship in a general hospital. Altogether, therefore, there are just fifty post-graduate schools and hospitals now listed as offering approved courses for physicians

Instead of the twenty post-graduate schools in 1916 which were offering courses of unknown quality, now there are fifty approved institutions giving courses that have been investigated and found worthy of the Council's endorsement. The Council has also prepared a list of subjects taught in the graduate medical schools, each subject being followed by the names of institutions in which such courses can be obtained. The physician, therefore, no longer needs to make a wild guess with regard to an institution in which he might or might not obtain the work desired. Now he has a carefully prepared list from which to make his selection.

ADVERTISING OF GRADUATE COURSES

Before the list of approved graduate schools was available, The Journal of the American Medical Association was carrying the advertisements not only of a dozen or more diploma-granting post-graduate schools, but also of several very brief courses in surgery given by so-called academies, institutes, laboratories, etc., from which on expending a generous fee and a minimum of mental energy the student could secure a beautiful diploma certifying to his exceptional proficiency as a specialist in the subject named on the diploma.

Following the issuing of the Council's approved list of graduate schools, the Advertising Committee of The Journal adopted two rules: that, after October 1, 1923, no post-graduate course would be advertised in The Journal unless it was approved by the Council on Medical Education and Hospitals; and that after January 1, 1924, no graduate or post-graduate medical school would be permitted to advertise in The Journal unless it was approved by the Council. In July, 1923, a written notice in regard to these rules, with a copy of the "Principles Governing Graduate Medical Education," was sent by the Advertising Department of The Journal to the officers of every graduate and post-graduate medical school and to all who were offering courses of instruction of any kind for graduates in medicine. The rules referred to, meanwhile, it is understood, were adopted by the Advertising Committee in response to a request of the Board of Trustees and other officers of the Association, in an attempt to check an evident rush into specialization by many who had not obtained sufficient special training to warrant them in so doing.

POSITION OF THE COUNCIL

In this work, so far as the Council is concerned, there is no attempt to prevent any individual or group from offering to physicians any course of instruction they see fit, or to prevent any physician from taking any course he desires. If, however, those offering the courses of instruction desire to have the Council's approval or endorsement of the course, they should not be unwilling to comply with the reasonable principles by which the courses can be made worthy of approval.

The courses of instruction most commonly used as short cuts into specialization are those in surgery and the surgical specialties. The Council has in no way hindered the establishing of such short courses, but merely asks that they be arranged in a graded series so that the physician-student can, if he desires, take them progressively, and that eventually he will secure a training which in both time and educational content is equal to the longer courses deemed essential for proficiency in the particular specialty. All authorities conferred with in the matter of preparation in the specialties were unanimous in suggesting that an internship in a general hospital be required as the basis of such training. The Council's rules permit that, in lieu of this general internship, five years of active practice may be accepted by the officers of the graduate medical school if in their opinion the physician is otherwise qualified to undertake the graduate work.

The Council feels emphatically that no restrictions should be placed in the way of physicians who desire to improve their efficiency in general practice. It is deemed highly important, however, that certain restrictions be established to insure that those posing as specialists, and particularly have secured sufficient training to guarantee a in the fields requiring operative procedures, shall reasonable degree of efficiency in that work. Generally speaking, the Council has provided a list of graduate medical schools giving courses of instruction which the Council can consequently recommend to physicians who seek instruction along those particular lines. Physicians cannot afford to leave their active practices, to pay large fees or to travel long distances to enroll for courses the content and value of which are entirely matters of guesswork. They no longer need to do this if they secure the Council's list of approved graduate medical schools.

The Council's work in the field of hospital service includes the securing of information with regard to all such institutions. The completeness of this information may be judged by the elaborate statistics appearing in the last Hospital Number of The Journal—that of March 28, 1925. The following items are of particular interest:

(a) Hospitals have been rapidly increased in number in nineteen years, from 2,411 in 1906 to 7,370 in 1925. The greatest increase in these years has been in the hospitals having from ten to twenty-five beds. The total bed capacity has increased from 217,658 in 1906 to 813,926 in 1925.

(b) Five years ago, 1,695, or 56 per cent, of the 4,068 counties in the United States were with-

out hospital service. Now, 1,367, or 45 per cent, of the counties are without hospitals. That is, 328 counties have been supplied with hospitals in the last five years. It is interesting to note that in the counties which are without hospitals, there are 17,381 physicians, or one to every 1,017 people.

(c) The demand for interns last year seems to have been fairly well supplied. In the United States there are 871 hospitals having 4,703 interns, and 1,048 other hospitals are using 3,133 resident physicians. Only 1,563, or 21 per cent, of all hospitals are making use of 7,836 interns or resident physicians. This 21 per cent of hospitals, however, has 435,209 beds, or 53 per cent of the total bed supply in the United States.

(d) In recent years there has been a rapid increase in the number of open-staff hospitals, so that the services of hospitals are being made increasingly available for all reputable physicians in their communities. Of the new hospitals established since 1920, 83.1 per cent report open staffs.

(e) During the last three years, in the conferences on hospital service particular stress has been laid on the educational function of hospitals. Besides the usual function of providing instruction for nurses, interns and occasionally medical students, attention is now being directed also to hospital's possibilities for the further training of its staff and of other physicians by medical meetings, conferences, special clinics and the like. The hospitals can do much also toward the education of the public, through the patients who come to the hospital and through their staffs, visiting nurses and social service workers.

(f) Finally, the hospital now appears to be the solution of several of the modern problems in medical practice. The lack of hospitals has undoubtedly been a prominent factor in the abandonment of smaller, rural communities by physicians, as well-to-do country people are forced to go to larger towns for hospital care. More hospitals in smaller communities, therefore, are helping to bring a wider distribution of physicians. Through their hospitals as centers for graduate medical education, such hospitals help local physicians to keep in touch with modern developments and improved methods in the diagnosis, treatment and prevention of diseases. Thus, the hospitals will help to bring the benefits of modern medical practice within the reach of a larger portion of the public.

5. MISCELLANEOUS ITEMS

Several matters referred to the Council at recent sessions of the House of Delegates are referred to in this section:

(a) Clinical Laboratories.—Two years ago, the Council was requested to make a special study of clinical laboratories. From unverified information, a list of 4,069 laboratories was developed, of which 3,035 were known to be connected with hospitals and 1,034 were listed as private laboratories. A questionnaire prepared with the advice of a special committee was sent to all the private institutions. Some of the laboratories were found to have been reported under different names, some had ceased to exist, and a large number were found to be engaged entirely in nonmedical work and for these reasons 365 were eliminated from the list, leaving 669 which are still listed as private clinical laboratories. Definite information has been received with regard to 421, and efforts are still being made, directly and indirectly, to secure satisfactory information regarding the remaining 248. Through persistent efforts, it is believed that the Council will soon be in position to publish a report based on definite and reliable information.

(b) Nurse Education.—Two years ago, a committee of three physicians was appointed, which with a similar committee of three representatives of the National League of Nursing Education, was to form a Joint Committee on Nurse Education and Service. The representatives of the American Medical Association were Dr. William Darrach of New York; Dr. Thomas McCrae of Philadelphia, and Dr. Winford H. Smith of Baltimore. The joint committee was to include also a prominent educator, and Dr. Samuel P. Capen, chancellor of the University of Buffalo, was selected for the place. When the joint committee was first contemplated, it was anticipated that ample funds for carrying on the essential surveys would be obtained through one of the large educational foundations; but such funds were not obtained. In order to finance the work, therefore, the committee is seeking appropriations from the several organizations interested in nurse education. This made essential also the establishment of a larger committee including representatives of the several organizations of physicians and nurses. At a meeting held in New York, Wednesday, March 4, 1925, it was decided to establish a committee of twelve delegates, one each with an alternate, from the American Medical Asociation, the American Hospital Association and the American College of Surgeons, and two each from three national organizations of nurses. A budget has been prepared which calls for an expenditure of $115,000 for the investigation and report. Already approximately $40,000 has been received toward the fund from various organizations. The committee has requested that the American Medical Association make an appropriation of from $1,000 to $5,000 toward this fund. This request was given consideration by the Council on Medical Education and Hospitals at its meeting held November 2, 1924, and the Council recommends that such an appropriation be made. It is recommended also that Dr. William Darrach be continued as the delegate of the American Medical Association on the Hospital Committee, and that Dr. Winford H. Smith of Baltimore be the alternate.

(c) Ethical Standards in Hospital Publicity.—A resolution presented at the 1924 session by Dr. George Edward Follansbee of Ohio, which was referred to this Council, urged the co-operation of the American Medical Association with the American Hospital Association in an effort to prevent unethical advertising by hospitals. The matter was taken up with the officers of the American Hospital Association in October. and a special committee has been appointed to co-operate with the American Medical Association and the American College of Surgeons in the work for more ethical advertising.

(d) Shortening the Course of Premedical Education.—A communication from Dr. Southgate Leigh of Virginia, presented to the House of Delegates last year, suggested that a special commission be established to help in shortening the time in intermediate and high schools, if possible, so as to save two years of time in premedical work. This was referred to the Council for consideration. The Council finds that a special commission on this matter does not seem advisable, as both national and state educational associations are making rapid progress toward the desired end. In most of our larger cities, it is found that the better grade of students in grammar school are now permitted to skip one or two years, so that many students are now able to enter college at the age of 16 or 17, instead of 18. Progress toward this end is moving at an accelerated pace, as indicated by the wider provision for the so-called

"junior high school," which constitutes the seventh, eighth and ninth grades but plans to take up work equal to the first three years of the high school. The so-called "senior high school" will be the tenth, eleventh and twelfth grades, but eventually the work will equal the present fourth year of high school and the first two years of college, which is now being given in junior colleges. This plan contemplates a six-year elementary course and a six-year secondary school course. The latter, it is believed, will complete the work now included in the first two years of college.

SUMMARY

The subjects dealt with in the foregoing report may be thus summarized:

MEDICAL EDUCATION

(a) In 1900, there were 160 medical schools in the United States—more than half the world's supply—including every variety, from an openly conducted diploma-mill up to the two or three which in standards and equipment compared favorably with any in the world. Most of them were proprietary affairs conducted for profit. In many only a number of didactic, ungraded lectures were given alike to the three or four classes. The faculties of thirty or more were made up of from one to five practitioner teachers. Many were entirely lacking, or seriously so in either laboratories, dispensaries or hospitals, and in all but about thirty the entrance requirements were absent or nominal.

(b) Now there is a smaller, but more normal supply of institutions, which in every way are well organized and efficient medical schools. Seventy-five, or 93.7 per cent, have entrance qualifications similar to those of the rest of the world; sixty-three (78.7 per cent) are integral parts of high grade, reputable universities; sixty-two, or 95 per cent, of the four year colleges either have their own teaching hospitals (thirty-four) or have liberal privileges in other hospitals (twenty-eight) whereby efficient routine methods of clinical instruction are being given, and thirty (38 per cent) now have groups of modern college and hospital buildings making them comparable with the best equipped medical schools of the world.

(c) The higher entrance requirements, the content of the medical curriculum and the duration of the medical course are not excessive, but represent a tardiness on the part of this country in the adoption of standards in our medical schools, long since required by the medical schools of Europe.

(d) As a result of these great changes, the expense of maintaining medical schools has indeed greatly increased; and although students' fees have also been increased, they cover less than one-fourth of this increased expense.

(e) New problems that have arisen as a result of these great changes are: (1) a complete reorganization of the curriculum; (2) a development of more efficient methods of instruction; (3) provision for a wider election of subjects by the student, and (4) the establishing of a larger number of scholarships for the asistance of deserving students without adequate finances. These problems have been the main topics of discussion at medical conferences during the last several years. Two years ago, also, a special commission was created to make an exhaustive study of the pressing needs in medical education.

(f) With the tremendous changes in social conditions, due to the amazing developments in a score or more of utilitarian and scientific fields and the greatly increased facilities for rapid transit between city and country, there has come about an unprecedented trend of all classes of people away from rural to urban communities. These changes call for extensive changes, also, in the methods of providing for public necessities in both city and country, including the benefits of modern medical service.

HOSPITAL SERVICE

(g) The tremendous growth in the number of hospitals, the great improvement of hospital service, and the trend toward making hospitals accessible to all reputable physicians in their communities seem to offer a solution for the more serious problems of medical practice. The building of more of them in the outlying districts will help to secure a better distribution of physicians, and the development of their educational function will help provide graduate education for the physicians in their communities.

GRADUATE MEDICAL EDUCATION

(h) Up to nine years ago, graduate instruction was given in institutions which, with a few exceptions, offered merely accumulations of ungraded and insufficiently described "courses" of doubtful value to the physician. Now there is a list of fifty institutions giving opportunities for graduate work, which, after careful investigation, have been found worthy of approval.

(i) Instead of having to make a wild guess with regard to certain post-graduate courses which might or might not provide him with the instruction desired, the physician now has the information by which he is enabled to select promptly courses that will fit his particular needs.

ADVERTISING OF GRADUATE SCHOOLS

(j) Since the list of approved instructions was prepared, advertisements of graduate schools or courses which are not approved have been refused insertion in The Journal.

(k) This action is consistent with The Journal's policy of advertising only what on investigation is found worthy of recommendation to its readers. Approval of graduate schools is based on compliance with certain principles prepared by those expert in graduate medical teaching. These principles are entirely reasonable, and were approved by the Reference Committee and adopted by the House of Delegates in 1923. These principles, meanwhile, have been favorably referred to recently in the British Medical press.

(l) Graduate medical education can be placed within the reach of the physicians of all communities, if the hospitals in these communities properly exercise their educational function. This can be done by special clinics, conferences and medical society meetings whereby the hospital becomes a center for such instruction.

GREAT ADVANCES IN MEDICAL EDUCATION

(m) The tremendous increase in the amount of definite knowledge regarding the specific causes, methods of diagnosis, prevention and cure of diseases, in the last fifty years has been no less marvelous, although possibly less spectacular, than the development of the movies, the automobile, the aeroplane, the radio and other marvelous improvements in astronomy, physics and chemistry.

(n) So rapid, indeed, have been the developments in all fields of human endeavor as to require not only a constant vigalance to keep informed regarding them, but also the devising of new methods whereby the essential needs of the public, both individually and collectively, can be supplied. Medical education and practice constitute only a part, although an important part, of the larger general problem. Respectfully submitted,

Council on Medical Education and Hospitals
Arthur Dean Bevan, Chairman.

Ray Lyman Wilbur. Merritte W. Ireland.
William Pepper. Nathan P. Colwell.
Samuel W. Welch. Secretary.

Among Our Letters

NOTE.—*This department is the open forum of our members. Your communications and discussions are welcomed. Anonymous communications cannot be accepted, though at times names may be omitted by the Editor. Personalities will not be printed and responsibility for opinions is not assumed. We invite your interest in this department. Address: The Editor, Journal, Michigan State Medical Society, Powers Theatre Bldg., Grand Rapids, Mich.*

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If you can keep your cash when doctors all about you
Are spending theirs on autos fine and new;
If your local banker will trust you,
And make a gesture of still further trusting, too;
If you can make a pile of all your hard earned winnings,
And still prevent the modest heap from total loss
Due to Golf and Country Club beginnings
And repeated "Drives" of which your wealthy patients are the boss;
If you can crowd each unforgiving hour
With sixty miles of distance run,
And when both your tires and engine lose their power
Have half a dollar left when all garage repairs are done;
If bills for rent and nurses and conventions
Fail to keep you in one everlasting fix,
Then, Brother, write and tell us how the deuce you did it—
For we take for granted you are dead and past the River Styx.

—J. C. S., Tonics and Sedatives.

THE WAIL OF THE DIABETIC

Dear Doctor:

At my birthday party a few days ago I had to write a rhyme and as this took form along the line of the thought most prominent in my mind, I could not resist the temptation of inflicting a copy on you.

THE WAIL OF A DIABETIC

Another year gone and again here I am,
Strong and hearty and don't give a damn.
For a time I thought I was bound for Heaven,
But Doctor said NO—you're but forty-seven.
Just cut out the sugar and the starches, too,
And I'm a Blue Pup if I don't pull you through.
Oh, them words was sweet—NO—Sweets not allowed,
And now I expect many years with the crowd.
So help me, kind friends, my tastes to subdue,
Don't tempt me with lemon pie smothered with goo—
Don't pass me the cake—away with the candy.
Oh, for a pretzel and a stein of old brew;
But nix on that stuff, it contains sugar, too.
The moral of all this is: Don't overeat,
For fat men and women are Insulin's meat.

I'll bet you couldn't do any worse yourself, and trust that you will suffer no ill effects from a reading of this.

Very sincerely yours,

L. F. C.

Michigan State Medical Journal:

There are a number of physicians at the hospital who, during their month's vacation in July, August and September, are desirous of taking a doctor's practice somewhere in the state during that time. There no doubt are a number of physicians who would be more than anxious to get in touch with such men and I am suggesting that a news item in the State Journal to this effect would be a means of connecting up such parties. If you choose to run such a news item, I would suggest that they communicate with me and I will aid them in the matter of getting a satisfactory substitute.

Yours very truly,

John L. Garvey,
Chief Resident Physician,
University Hospital.

June 12, 1925.

To Whom it May Concern:

Certificate of Registration No. 7830, issued by the Michigan State Board of Registration in Medicine to John F. Migdalski, under date of July 25th, 1914, was, on the 10th day of June, A. D. 1925, at a meeting of said board held at the City of Ann Arbor, County of Washtenaw, State of Michigan, duly revoked by said board, pursuant to the provisions of Act 237 of the Public Acts of 1899, being Section 6725 of the compiled laws of 1915, as amended, for the following reasons: A certified copy of a final conviction on a criminal charge having been filed with the Secretary of the Board, and also upon charges of unprofessional conduct and offenses involving moral turpitude.

Michigan State Board of Registration in Medicine.

Guy L. Connor,
Secretary.

To the Editor of the Journal of the Michigan State Medical Society:

In the June number of the Journal you print a letter from Surgeon General Ireland soliciting, as a patriotic duty, the gratuitous services of the medical profession in making physical examinations and giving of vaccines to candidates for the C. M. T. C.

Among your editorial comments on the preceding page, regarding advice to insurance companies as to insurability of patients, you recommend that a just fee be demanded.

Have the members of the medical profession any greater patriotic duty to the government than any other citizen?

Is the federal government any less able to pay for services rendered than any life insurance company?

Why should not a fund be provided from which to pay a proper fee for such examinations?

No other professional or business man is asked to lend his assistance to the C. M. T. C. without adequate remuneration.

The writer confesses to having made these examinations without fee.

But, there should be a limit.

We are asked to do more and more without any compensation, as our "patriotic duty," or from "municipal pride," or "civic duty," or "pure charity."

No one can accuse the medical profession with lack of charity. In fact, one of its greatest crimes is that it has forgotten, if it ever knew it, that charity begins at home.

J. F. B.

COMMENT:—Right you are, doctor, but how can you best initiate the movement? Somebody tell us.

State News Notes

COLLECTIONS

Physicians' Bills and Hospital Accounts collected anywhere in Michigan. H. C. VanAken, Lawyer, 309 Post Building, Battle Creek, Michigan. Reference any Bank in Battle Creek.

NURSES' private home, invites convalescents and invalids: best of care, fine location. R. Rs. N. Y. C. and Interurban; best of references given. For particulars write Bessie Bileth, 566 Ely Street, Allegan, Mich.

WANTED: Salaried Appointments for Class A Physicians in all branches of the Medical Profession. Let us put you in touch with the best man for your opening. Our nation-wide connections enable us to give superior service. Aznoe's National Physicians' Exchange, 30 North Michigan, Chicago. Established 1896. Member The Chicago Association of Commerce.

COLLECTION SERVICE

AMERICAN MEDICAL BOARD OF ADJUSTERS, First National Bank Bldg., Chicago. Guaranteed *Delinquent* Collection *Service*. Anywhere U. S. A. (Medical Profession Exclusively). Debtors pay you direct. Litigation avoided. Adjustments encouraged. No "Agency" methods. Financially responsible. WRITE!

FOR SALE—Excellent practice, with instruments and medicines, residence and office; town of 5,000. Will bear close investigation. Mrs. A. E. Savage, Greenville, Michigan.

FOR SALE—Well established practice and residence of the late Dr. Shilling, for less than cost of residence alone. Located at Nashville, Michigan. Population, 1,500; nine-room brick house, modern plumbing; three room office and lavatory; two car garage; large lot. Located on main street; price $7,000. House worth $9,000. Supplies, equipment, practice go along with sale. Reasonable terms to responsible people, to settle estate. Address O. D. Freeman, Nashville, Michigan.

FOR SALE—Pharmaceutical supplies. We offer $1,400 merchandise credit with the Standard Laboratories (Manufacturing Chemists) Chicago. Will make very attractive proposition to settle estate. Write Estate of F. F. Shilling, Nashville, Michigan.

$12,000 PRACTICE established 15 years, modern home, office, full equipment, medical books, office furniture, full line new surgical instruments; 3 car garage; fine location, for sale by widow of late physician and surgeon, in city of 50,000. Write Mrs. C. A. Traphagen, 405 N. Walnut St., Bay City, Michigan.

The following items concern Detroit doctors and is taken from the Wayne Bulletin:

DOCTORS' DOINGS

Dr. Ralph H. Pino sailed June 13, 1925, for Vienna, where he will spend the summer in post-graduate eye and ear work.

Dr. Richard M. McKean has returned from a short trip through the east after attending the annual session of the American Medical Association.

Miss Woodrum, at the Liberty Starter Company, West 0425, has in her possession an exquisitely carved gold-headed cane with the name "Dr. Willis Samens, 1824-1874," engraved on it. She would like to find the owner or his relatives so that she can return this article.

Dr. and Mrs. Thaddeus Walker left for Ogunquit, Me., where they will spend the summer.

The following officers for the ensuing year were elected by the 75 staff physicians and surgeons of the Receiving Hospital: Doctors E. G. Martin, president; Richard McKean, vice-president; C. Fremont Vail, secretary-treasurer, and Harry Plaggemeyer, R. L. Novey, Carleton Fox and Harold K. Shawan, members of the executive committee.

Dr. and Mrs. Leo Dretzka left recently for New York and sailed on the Veendam for a two months' trip abroad. They will visit Paris and Vienna.

Dr. Wm. J. Stapleton, Jr., has left for a three months' tour of Europe. He will return home about the first of September.

Dr. Norman K. H'Amada is spending three months in Paris and will return to Detroit early in September.

Dr. and Mrs. C. M. Clark have left on a two months' tour of the west, visiting the Grand Canyon, Pacific coast and numerous points throughout the Canadian Northwest.

The graduation exercises of the Detroit College of Medicine and Surgery were held on June 18th. Dr. John B. Deaver of Philadelphia, delivered the address to the class.

Dean Cabot of the University, received an honorary degree of L.L.D. from one of the English universities while in Europe in June.

Dr. A. M. Barrett of Ann Arbor, addressed the Michigan State Nurses' Association during their annual meeting in Traverse City, June 24-26.

Dr. C. D. Brooks, Detroit, entertained Dr. J. B. Deaver of Philadelphia during the Detroit Clinic week.

The Ford Hospital School of Nursing and Hygiene, Detroit, held a formal opening on June 17th. Dr. C. E. A. Winslow of Yale, was the principal speaker.

The Detroit Academy of Surgery held its regular meeting on June 19th at the Prince Edward Hotel, Windsor. Dr. Deaver spoke on "Indications for Splenectomy."

Dr. H. Meneese, Blodgett Hospital, Grand Rapids, was awarded a bronze medal for his scientific exhibit on Gall Bladder Radiology at the Atlantic City meeting of the A. M. A.

Don't forget to make your hotel reservations for the Annual Meeting in Muskegon on September 8, 9th and 10th.

Dr. Chandler, who has served a two-year interneship in John's Hopkins, assumed his duties as chief resident, Butterworth Hospital, Grand Rapids, on June 8th.

Dr. Pottenger of Momovia, California, and Dr. Frank Smithies of Ann Arbor, conducted a medical clinic in Grand Rapids on June 9th. Dr. Dean Lewis, Chicago, conducted a Surgical Clinic on June 30th. These clinics were held in the new Butterworth Hospital.

Dr. F. C. Warnshuis, Grand Rapids, addressed the Michigan State Nurses' Association at its Annual Meeting in Traverse City on June 24-26th.

Our hosts, the doctors of Muskegon County, impart in this issue a partial view of their city. They are eager to have you come and participate of their hospitality. Write for your reservations now.

County Societies should assure themselves that the delegates they have elected will attend the Annual Meeting. If your delegate cannot attend, elect one that will. Be sure that your local society is represented in the House of Delegates.

Our Society Business and Activities

HARVEY GEORGE SMITH

EXECUTIVE SECRETARY

NOTE: This Department will each month contain a discussion and report of our Society work and planned activities. Your interest and correspondence as to your problems is solicited.

STATE MEETING

Now is the time for County Medical Societies to start propaganda for the biggest State Meeting in the history of the Michigan Medical Society.

The usual plan for all such scientific meetings is to be individualistic. I may go, you may go, or I heard Dr. Jones was going, is the regular way of considering and deciding on attending State Meetings. Individualism is essential. But add to it united effort on the part of each society from every county of Michigan and the I becomes We. We, will mean ten doctors from one county, twenty from another, fifty from another, until fifty-six County Societies have their biggest representation.

The result—We—will be twelve hundred strong at the biggest Michigan State Medical meeting in History.

POST-GRADUATE CONFERENCES

The Michigan State Medical Scoiety, in co-operation with the twelfth and thirteenth Councilor Districts and their component County Societies, will conduct five Post-Graduate Conferences in Northern Michigan during the last week of June and the second week of July, as follows:

Petoskey, June 25, 1925; Escanaba, July 7, 1925; Marquette, July 8, 1925; Houghton, July 9, 1925; Sault Ste. Marie, July 10, 1925.

The conference at Petoskey is the second to be held in the Thirteenth Councilor District. The first one was held at Alpena and was one of the most successful in the state.

The series of four conferences in the Northern Peninsula are the first to be conducted in the Twelfth District. The programs will be presented by six doctors, coming from Detroit, Battle Creek, Ann Arbor and Grand Rapids.

The Northern Peninsula has established a reputation for itself in having well organized County Medical Societies and a successful annual medical meeting. This record insures results in the Post Graduate conferences and the advancement of Scientific Medicine.

MICHIGAN ORGANIZED MEDICINE LEADS OFF IN NEW ACTIVITY

The County Medical Society program teams organized for the direct purpose of advancing scientific medicine have been initiated by Michigan Medical Societies. The program team is an organization of a group of two, three, four or more men representing a County Medical Society and whose duty it is to prepare an exceptional program from experience and from the latest literature and information available. Such a program is then presented before the local society and before neighboring societies.

This idea has grown out of the demand of the smaller societies and the more or less isolated ones for more and better scientific programs. The small society of ten or fifteen members is unable to secure speakers from great distance due to the excessive cost. By itself it cannot maintain interesting programs and were this possible excessive time would be required from each member. Out of this condition has come the idea of societies assisting each other in their programs. Not a single man, but a group of men representing the society and not the individual plan a program for their own Medical Society and when prepared

volunteer to give the program for the nearby societies.

The Bay County and the Alpena County Medical Societies are the initiators of the new movement in Michigan. To Alpena may be given the credit for requesting such assistance and to Bay County must be given recognition for responding to the request by sending five men in the first team of scientific medicine ever organized in Michigan.

This new movement sounds the note of progress in scientific medicine through all parts of the state. It means that if concurred in by the Medical Societies of the state generally that no Society will be inactive and that every Society can have at least six excellent programs during a year.

The program team plan, if carried out, will advance scientific medicine, develope acquaintance and friendship among physicians within each Society and among all adjoining Societies. It gives each Society a goal to strive for and an opportunity as an organization to serve fellow practitioners. The field of study is enlarged, more physicians will continue post-graduate study in their field of work and the advancement of scientific medicine will result.

The organization of program teams by County Medical Societies will indirectly interest the laymen. The public is interested in the advancement of community interests. It is ready to be a direct propagandist for any activity which means a better community, better in the science of medicine and better in health and the understanding of what scientific medicine can do.

The new activity of medicine, the organized scientific teams, representing County Medical Societies directs the way to more progress for scientific medicine for the physicians themselves and the community as a whole.

MINIMUM PROGRAMS

If every County Medical Society in the State of Michigan adopted a minimum program of activity for the year, the science of medicine would be advanced at least two years in only one. Every County Medical Society would be a service organization for its own membership, for adjoining County Societies and for the communities component of the Medical Society. Every member would receive advanced post-graduate scientific education at home within his community. Each County Medical Society would become a co-partner with every layman's organization of what ever type in the advancement of those factors which build permanent and happy communities. A well thought out and planned minimum program would directly or indirectly affect and assist each community, urban or rural in the vital community factors. The educational program, the social activities, the physical well being of the people, the economic life and the religious life.

The County Societies are presented the following minimum program for thought and study during the summer months. The recommendation is that each Society be ready when the first meeting is called in autumn to take up action.

The program:

Section 1. (a) Scientific. Ten meetings are to be held during the year. Local speakers are to appear before three meetings with definite planned discussions.

(b) A program of physical examinations shall be instituted in which all physician members shall agree to have a complete physical examination themselves and each shall agree to secure at least five patients who will agree to have complete physical examinations.

Section 2. Social and informal activities. Each Society is to have at least three dinner meetings. The speakers for these meetings shall be public speakers, educators, financiers, but not medical men. At least one picnic shall be held. At least one social evening, in co-operation with members of closely related organizations shall be arranged.

Section 3. Scientific teams. Each Society shall have a group of two or three members who will prepare a program and give it on request before at least three other Societies.

Section 4. Public health information and education. Each Society shall plan to have at least one public health lecture group which shall give at least five lectures in cities and communities outside of their resident communities or cities. Adjoining counties are to be included. Each Society shall co-operate and assist other organizations so that the following public lectures may be held. Co-operation shall be established with the Extension Department of the University of Michigan and Joint Committee on Public Health.

One lecture for each High School; one for each Parent-Teacher Association; one Woman's Club.

Section 5. Publicity. Each meeting, scientific or public, shall be reported to the local newspapers in such form that at least one important point of value can be read by the reader.

The Secretary shall report each month to the State Medical Society the complete record of all activities and accomplishments.

Multiply the minimum program of each Society by fifty-six, the number of County Societies, and you have some idea of the advance scientific medicine will make in one year.

Deaths

DR. JOHN A. McCOLL, GRAND RAPIDS

Dr. McColl was born at Fingal, near Toronto, Canada, in 1858. He studied medicine at Bellevue Hospital Medical College, graduating in 1886. Following a course of training in Eastern hospitals, he came to Grand Rapids, where he lived and practised medicine for forty years.

Dr. McColl took a very active part in municipal affairs. He was a member of the Board of Education for fifteen years, served as library commissioner, and was a member of the city commission for two terms. At the time of his death he was a member of the Detention Hospital Board. He was a member of the staff of Butterworth Hospital.

Dr. McColl had been a sufferer from an intestinal disease, from which he sought relief by an operation at the Battle Creek Sanitarium. He did not survive this operation, and died May 26, 1925.

It is unusual to find a physician who, while engaged in the active practise of medicine, can find time to devote to municipal interests and affairs. Dr. McColl did both, and his ability and valuable services were contributed to a variety of municipal interests. He represented a type of physician which is passing, a man who rendered service both to the individual in helping to correct the ills of his body and likewise collectively to the citizenship of his municipality.

County Society News

CALHOUN COUNTY

The June meeting of the Calhoun County Medical Society was held Tuesday evening, June 9th, at Battle Creek, Michigan. The scientific program consisted of a paper on "The Functional Anatomy of the Cervical Sympathetic Considered in Relation to the Operation for Angina Pectoris," by Dr. G. C. Huber, University of Michigan, Ann Arbor. His talk, illustrated with lantern slides, brought forth many questions and excellent discussions.

L. E. Verity, Secretary.

WAYNE COUNTY

The Wayne County Medical Society sang its swan song to a very successful year with a quartet of excellent May meetings. The first of these was a general symposium on the status of heart disease in Detroit, with a discussion of methods at present in use in following heart disease in the various clinics of the city, and presentation of instructive cardiac cases. This meeting was given under the auspices of the Cardiac Committee under the chairmanship of Dr. Walter J. Wilson, Jr.

The second meeting of the month featured a discussion of X-ray findings in gall bladder disease by Dr. Preston M. Hickey, Professor of Roentgenology of the University of Michigan. The essay of the evening was most instructive to everyone, no matter what his particular specialty, and dwelt particularly on the value and technique of the use of phenoltetrabromphthalein, intravenously and by mouth, in attempted visualization of the gall bladder.

Dr. James E. Davis, Professor of Pathology of the Detroit College of Medicine and Surgery, gave the third paper of the month, with an admirable dessertation of "Functional and Structural Changes Resulting From Disease of the Kidney," with a very workable classification of kidney disease constructed on this basis.

The fiscal year was closed officially with a practical paper by Dr. Wm. J. Cassidy, presenting "Further Contributions to Surgery of the Brain."

At various meetings during the month the following officers were elected for the year 1925-1926:

President, H. A. Luce, M. D.; Vice-President, J. H. Dempster, M. D.; Secretary, Richard M. McKean, M. D.; Trustee, Geo. E. McKean, M. D.; Chairman Medical Section, R. E. Loucks, M. D.; Secretary to Section, R. L. Novy, M. D.; Chairman Surgical Section, Geo. C. Burr, M. D.; Secretary to Section, E. C. Baumgarten, M. D.

All in all, the year has been a very happy one under the splendid leadership of Dr. Wm. J. Stapleton, Jr., with the weekly meetings furnishing in themselves a post-graduate course which one could ill afford to miss, and by the efforts of the entertainment committee the four walls of our clubhouse, slightly antiquated though it may be, has added much to the better understanding and the social life of the Society.

Richard M. McKean, Secretary.

HILLSDALE COUNTY

The postponed quarterly meeting of the Hillsdale County Medical Society was held at East Hall, Hillsdale College, Tuesday, May 19th, at 6 p. m.

The societies of Branch and Lenawee Counties had been invited to join in the meeting and a number of gentlemen from both societies were present.

After a bountiful dinner, the President, Dr. J. H. Johnson, presented the speaker of the evening, Dr. Phil L. Marsh of the University of Michigan, his subject being, "The Diagnosis of Heart Disease." His address was most interesting and illuminating, taking up the theme under three heads, "The Anatomical, the Etiological and the Functional Diagnosis," and was listened to with profound attention. Discussion was opened by Dr. Hanke, followed by Doctors Sawyer, Oliver and others. A number of questions were asked which Dr. Marsh answered.

A rising vote of thanks was given Dr. Marsh for his splendid address.

Dr. Bell proposed that the three counties of Branch, Hillsdale and Lenawee continue holding their meetings jointly and this suggestion was changed into a motion and carried, and the secretaries of the three societies, who were all present, were instructed to meet at once and arrange details, including the date and place of next meeting.

This conference resulted in an agreement to hold meetings monthly, the next one to be at Adrian, the last Tuesday in June, next. This important change was felt by all present, to be a long step forward and to give a better warrant for asking men like Dr. Marsh to spend their time and strength in coming to address us.

There being no further business to come before the society, it was moved, supported and carried, to adjourn to the last Tuesday of June.

D. W. Fenton, Sec'y-Treasurer.

ALPENA COUNTY

The regular meeting of the Alpena County Medical Society was held at Long Lake, Thursday, May 21st. Dinner was served at Racette's, Doctors Burkholder, Sans and Bertram acting as hosts.

The program was supplied by the Bay County Med-

ical Society, who are exchanging programs with our Society. Dr. L. F. Foster, Secretary of the Bay County Medical Society, had charge of the program. Dr. A. D. Allen read a paper on "The Social and Economic Phase of Feeble-Mindedness and Insanity." He showed the necessity for making systematic effort in the prophylaxis of mental disease. This paper was discussed by Dr. A. T. Sheets, Psychiatrist of the State Hospital at Traverse City.

Dr. William R. Ballard, Bay City, gave an interesting discussion of the problem of "Prostatic Hypertrophy," in which he urged early operation to prevent the long train of symptoms later manifested in this disease. Dr. E. L. Foley discussed this paper. Dr. P. R. Urmston of Bay City, illustrated with X-ray plates his subject on "Mastoiditis," showing how frequently the symptoms of the disease were masked, the X-ray assisting in the diagnosis. Dr. William Newton led the discussion on this paper.

Dr. George McKean of Detroit, another guest at the meeting, summarized the various papers, emphasizing the various points made by the essayist.

It is anticipated that the Alpena Medical Society will return the visit of the Bay County Society at their meeting in September.

C. M. Williams, M. D., Secretary.

GOGEBIC COUNTY

The following is a report of the May meeting of the Gogebic County Medical Society, which took place on May 15th, 1925.

Meeting of the Gogebic County Medical Society was held at the Grand View Hospital, May 15, 1925, with the following members present: Doctors Crosby, Stebbins, Hambley, Dorpat, Larson, Hanson, Tew, Harmos and Draper.

The meeting was called to order by Dr. Crosby. Correspondence was read from the Secretary of the Upper Peninsula Medical Association, in which an invitation was extended to the local society to attend a meeting August 13th and 14th. Discussion followed and it was decided that, if possible, a good attendance should be had from the Gogebic County Medical Society.

Dr. Hanson extended an invitation to the Society to go to Marenisco for their next regular meeting and the Secretary was requested to inform Dr. Hanson by letter of the number who would be able to accept, so that the doctor would have an opportunity to make preparations.

It was moved by Dr. Larson and seconded by Dr. Stebbins that this invitation be accepted. Motion carried.

Two papers were presented, one by Dr. Hambly on "Angina Pectoris," and one by Dr. Hanson on "The High Spots of Psychiatry," after which there was generous discussion.

There being no further business, the meeting adjourned.

M. J. Lieberthal, M. D., Secretary.

HOUGHTON COUNTY

The Houghton County Medical Society held its regular monthly meeting at the science room of the Lake Linden High school, Tuesday, June 9th, with 14 members present. After the reading of the minutes and allowing of bills, the chairman appointed Doctors Fischer and Dodge on a committee to draw up resolutions over the death of our member, Dr. C. E. Gallen, Hancock, Michigan.

Dr. Harkness of Houghton, who is president of the Medical Committee for the Clinic of Crippled Children, to be held in Houghton, July 9-10, stated that he had suggested that the entire County Medical Society act as a committee on professional assistance in the successful carrying out of this Clinic.

Dr. A. P. Wilkinson of L'Anse, gave a resume of his visit to the Atlantic City session of the American Medical Association. He presented some very interesting features which he saw while there, and a very free discussion by all members present was indulged in. Dr. C. E. Rowe next gave a paper on "Every Day Stuff." Dr. Rowe presented some very practical helps which he has secured for use in his practice. The most important was a radium emanation machine which he is using in his practice very successfully. He also gave some very interesting data on Digitalis, its growth, preparation, standardization and different conditions in which it is used. He also presented a Cook carpule syringe, and he distributed samples of meruchome—220 of which were sent him by Hyson, Wescotte & Dunning.

A very fine luncheon was served by the ladies of the domestic science department of the high school preceding the program. A very hearty vote of thanks was extended Dr. Rowe for providing such a fine lunch and helping to make the meeting the success it was.

On July 8th we are planning on having a large attendance at our post-graduate medical conference, which will be held at the Douglas House, Houghton.

G. C. Stewart, M. D., Secretary.

Among the Books

A Review and Frank Appraisal of Medical Books That are Proffered to the Profession by Publishers.

PHYSICAL DIAGNOSIS OF DISEASES OF THE CHEST—Joseph H. Pratt, A. M., M. D., and George E. Bushnell, Ph. D., M. D. Octavo of 522 pages with 166 illustrations. Cloth, $5 net. W. B. Saunders Company, Phiadelphia.

This text on the diagnosis of diseases of the chest is a very acceptable addition to our literature. It sets forth clearly, in logical sequence, the principles and measures whereby one may make a reliable diagnosis of intrathoracic pathology. It stresses the essential, interprets the findings, excludes the non-essentials and points out the exceptions. It is well written and suitably illustrated.

A PRACTICE OF GYNECOLOGY—Henry Jellett, M. D., Dublin Uuiversity. Fifth Edition, 417 illustrations; 744 pages. Price $8.50. Lea & Febiger, Philadelphia.

In this fifth edition the reviewer is confronted with a text that commands respect and arouses interest. One readily perceives a clearness of text with essential discussion that brings out clearly, and in order of importance, essential principles and practices. Anatomy and anatomical relationships rightly are considered in the application of all treatment.

Gas Inflation of the Tubes, Ovarian Transplantation, Manchester Treatment of Uterine Prolapse, Endo-

metritis, Menstrual disorders, Vaccine and Radiotherapy are either new chapters or re-written and so impart the modern, accepted views and therapy. The only superfluous pages are those pertaining to types of instruments. Splendidly illustrated, many in colors, the text is vividly emphasized. The text is an essential one in every man's library.

THE SURGICAL CLINICS OF NORTH AMERICA—(Issued serially, one number every other month.) Volume V, Number I. (New York Number—February, 1925). 294 pages with 142 illustrations. Per clinic year (February, 1925 to December, 1925). Paper, $12; cloth, $16 net. W. B. Saunders Company, Philadelphia and London.

A MANUAL OF PHYSICAL DIAGNOSIS—Austin Flint, M. D., L. L. D., New York. 9th Edition, revised by Henry C. Thacher, M. S., M. D. Illustrated. 307 pp. Price $3. Lea & Febiger, Philadelphia, Pa.

This is an excellent manual that stresses the application of personal diagnostic measures before seeking laboratory means to establish a diagnosis. It is a manual written for the student and so applies to the student in practice whether he be a recent graduate or one of years of practical work. It is just the manual to guide one toward greater exactness and skill. It causes one to utilize the four physical diagnostic means that have stood the test in spite of the advancements made in laboratory investigations.

1924 COLLECTED PAPERS OF THE MAYO CLINIC AND THE MAYO FOUNDATION, Rochester, Minn.—Octavo of 1,331 pages, 254 illustrations. Cloth, $13 net. W. B. Saunders Company, Philadelphia and London.

An exceptional collection of papers that exceed in value some of the preceding volumes. One will find in these papers much for profit and assistance. Likewise, one will glean a new viewpoint of the modern advancement of our profession. Above all, an indisputable authority is acquired. The collected articles will supply one of the most valuable volumes in a library. We recommend unreservedly this annual contribution to our literature.

NEW AND NONOFFICIAL REMEDIES, 1925—Containing descriptions of the articles which stand accepted by the Council on Pharmacy and Chemistry of the American Medical Association on Jan. 1, 1925. Cloth. Price, postpaid, $1.50. Pp 161—|—XL. Chicago: American Medical Association, 1925.

New and Nonofficial Remedies is the publication of the Council on Pharmacy and Chemistry through which this body annually provides the American medical profession with disinterested critical information about the proprietary medicines which are offered to the profession and which the Council deems worthy of recognition. The book also contains descriptions of nonproprietary medicines which the Council considers worthy of consideration.

In addition to a statement of the actions, uses and dosage of each product, many of these are arranged in classes and these classes are introduced by a general discussion of the group; thus the silver preparations, the iodine preparations, the arsenic preparations and the biologic products are preceded by a thoroughly up-to-date discussion of the group.

A glance at the preface shows that, in addition to the description of the new drugs which were accepted during the past year, the book has been extensively revised; many of the preparations listed in the previous edition have been omitted and the statements of the properties of others have been revised to bring the descriptions in accord with present day knowledge. Of particular interest is the revision of the general articles; thus the article on endocrine products has been entirely rewritten to bring this chapter in accord with the series of articles on glandular therapy which were published in 1924 under the auspices of the Council. A general article on medicinal dyes has been added.

A section of the book (brought up-to-date each year) gives references to proprietary articles not accepted for New and Nonofficial Remedies. This list, in conjunction with the book proper, constitutes a cumulative index of proprietary medicines which physicians may consult when some proprietary product is brought to their attention.

Physicians cannot dispense with the newer remedies that are being brought out, yet they can neither judge them on the basis of the manufacturers' claims nor have they the opportunity or time to determine their merits. For this reason every physician should possess a copy of the annual volume of New and Nonofficial Remedies which the Council on Pharmacy and Chemistry puts at his disposal.

INDUSTRIAL POISONS IN THE UNITED STATES—Alice Hamilton, A. M., M. D., Assistant Professor of Industrial Medicine, Harvard Medical School, Boston, Mass.; Formerly Special Investigator of Poisonous Industries for the U. S. Bureau of Labor Statistics. The Macmillan Company, Publishers, New York.

There has been an enormous increase in the interest of the medical world in industrial toxicology of late years, especially since our entrance into the war in 1917.

Dr. Hamilton has made a detailed study of Industrial Toxicology both here and abroad, but has laid the greatest stress on Industrial Poisons in the United States, not failing to recognize, however, the valuable contributions of foreign observers in this field.

THE SURGICAL CLINICS OF NORTH AMERICA—(Issued serially, one number every other month.) Volumb V, Number II. (New York Number—April, 1925.) 337 pages with 105 illustrations. Per Clinic year (February, 1925 to December, 1925.) Paper, $12; cloth, $16 net. W. B. Saunders Company, Philadelphia and London.

ABT'S PEDIATRICS—Vol VII. W. B. Saunders Company, Philadelphia.

This is the seventh volume of Abt's System of Pediatrics—the most modern and comprehensive text on pediatrics existant. It empraces the Nervous System, Surgery of the Head and Spine, Brain and Spinal Cord, Psychopathology, defects of speech and sexual life of the child. It reflects the same thoroughness and completeness of the previous volumes of this system. It's text is clear and the illustrations and references are added features. The writers' names insure authority and foster confidence. Nowhere else can one find so reliable a discussion of pediatric sub-

jects. It is, as we have noted on the other volumes, the greatest existant work on Pediatrics.

MODERN SURGERY, General and Operative—J. Chalmers Da Costa, M. D., LL. D., F. A. C. S. Samuel D. Gross, Professor of Surgery, Jefferson Medical College, Philadelphia. Ninth Edition, revised and reset. Octavo of 1,527 pages with 1,200 illustrations, some in colors. Cloth, $10 net. W. B. Saunders Company, 1925. Philadelphia and Londoo.

The revision of this text, which has for years assumed a foremost place in our surgical literature, provides the general practitioner and surgeon with a most reliable reference. Ample in its etiological, pathological, symptomatic, diagnostic and surgical procedures that are tersely and pointedly imparted, it meets a need and is invaluable. We know of no other surgical text that one can turn to with assurance of help as can one when he consulst Da Costa. It is a text that rightly merits a place in every doctor's library. We refer to it often and do not recall having done so in vain. It covers the field of modern surgery completely and thoroughly. It is sound in theory and practice.

MUSKEGON COUNTY TUBERCULOSIS SANATORIUM

Muskegon County's new Tuberculosis Sanatorium, which was completed at a cost of $150,000 equipped, and which will be opened within the next three or four weeks, ranks with the finest in the United States.

Equipped with the most modern hospital devices and furnishings, the new sanatorium is a self-contained unit, dependent upon the outside world only for its supplies and for the electric power which operates the machinery, cooks the food, runs the radio in every room and lights the building from top to bottom. But for the rest, it is a little world unto itself —making its own ice, pumping its own water, operating its own laundry, having its own fire department.

Today, but for the furnishings and medical and surgical equipment, the sanatorium is complete, and Dr. Walter C. Reineking, who has been engaged as superintendent and medical director, is working at top speed with the board of trustees to secure the best fittings essential to the treatment of tuberculosis according to the latest methods.

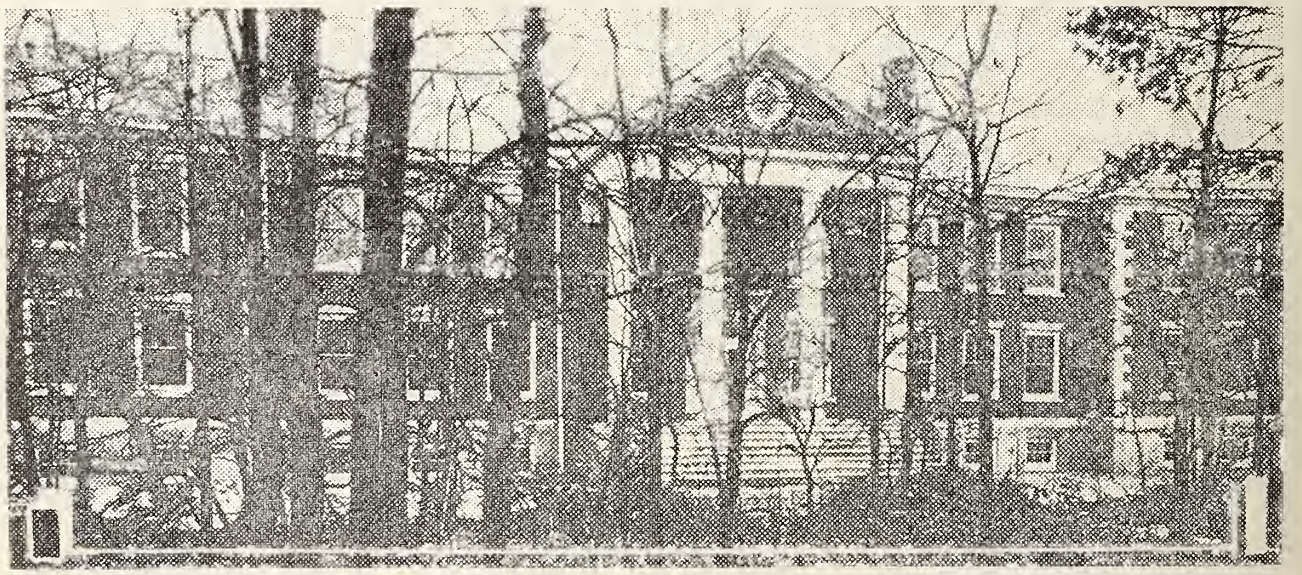
TO SET OPENING DAY

As soon as all the furnishings are in place, the board of trustees will set the day for the formal opening, when invitations will be sent to all parts of the state that those who are interested in the fight against the "white plague" may inspect the institution which will mark a new era in combatting the disease in Michigan, and when open house will be held for all visitors.

Then the patients now housed in the obsolete hospital at Woodlawn will be transferred to the new institution to begin their struggle for health, aided by all that medical science can offer.

Set in a splendid grove of 20 acres of oak, on the hill overlooking the mouth of the Muskegon river and the wide expanse of Muske-

COUNTY'S NEW SANATORIUM



—PHOTO BY RADIUM STUDIO

Work of clearing away the trees around the new tuberculosis hospital across the lake already has been started, and the general public never will see the building in the state shown in this pciture. However, the picture gives a good idea of how the hospital looks from the front, in spite of the screen of underbrush.

gon lake, the building is a beautiful structure, and from the open-air porches and spacious sun parlors a view is afforded that is unsurpassed, encompassing wooded lake shore and blue water, with the river winding its way through the flats below the hill and the city rising on the opposite side of the valley.

LOCATION PERFECT

No more perfect location could have been found for such a sanatorium. It is far enough from the Holton road, which runs in front of the grounds, to be removed from the noise of motor traffic, and the scenery, viewed from the rooms on the south side, in which the patients will be housed, is all that could be desired, giving an atmosphere that is conducive to health in more ways than being high and dry and affording an abundance of fresh air.

Most of the rooms for the patients are on the south side, and are drenched in sunlight from the broad windows. On the south side, too, are the recreation rooms, spacious glass-walled rooms furnished with lounges and comfortable chairs, with cases which will be filled with books to while away the idle hours.

PORCHES SUNNY

Opening from these rooms are the porches, into which the sun pours its health-giving rays and about which play the breezes fresh-washed from miles of open lake or clean and sweet from the country acres.

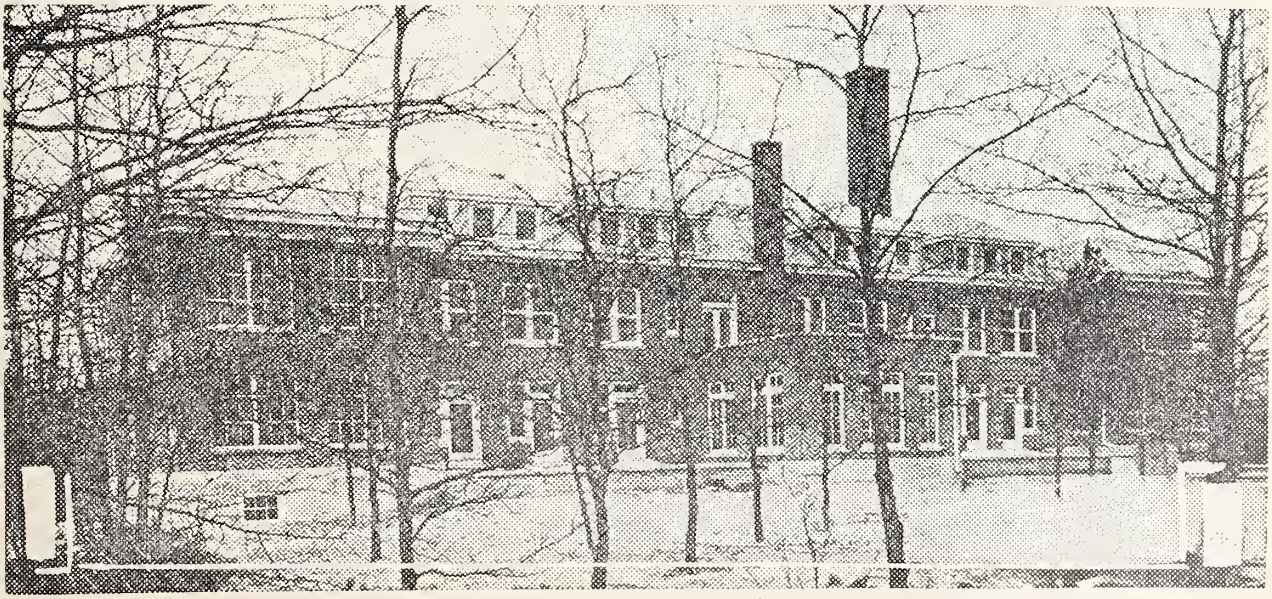
On the other side of the building are the offices for the administration of the hospital; there are the operating and the dental rooms; the roomy, electrically equipped kitchens, and the quarters for the nursing staff and help; there are the dining rooms and all the rooms for the other things that are necessary.

But for the patients, of whom eventually there will be 60 in the present building, all the best and sunniest quarters are reserved.

The basement of the building is given over to the power plant and the heating plant, the main kitchen and its storage and refrigerating rooms, the gas plant and the artificial ice plant, store rooms for everything, a pumping station and water tank for reserve. The building has its own fire protection, with pumps providing water pressure. Its water comes from its own wells, three in number, each operated by an independent pump. It has its own sanitary sewer system.

TYPE OF CONSTRUCTION

Three stories high, the building is fire-proof. It is constructed of reinforced concrete, faced with brick and stone. The roof, which encloses the third story, is of asbestos shingles, and the interior walls are of hollow gypsum blocks. The doors, which are of wood, are wide enough to permit easy entrance and exit with beds, are incased in metal frames, and are flush with the walls, as are the baseboards, which, with the floors, are of terazzo.



—PHOTO BY RADIUM STUDIO

Sun parlors, rooms for patients, and wide open-air porches make up the entire south side of the hospital, overlooking the mouth of Muskegon river and all of Muskegon lake. The patients will be able to see the city of Muskegon in the distance. In the picture, the three big sun-rooms, the recreation hall and the porches may be distinguished.

Included in the office to be used by the medical director is an examination room and an X-ray room, with dark room.

Each patient's room is wired for radio installation, to furnish entertainment, and an intercommunicating telephone system keeps the floor nurse in easy call at any moment, a push of the button by the patient giving an alarm which he alone can turn off when the nurse arrives.

The entire building is piped for high pressure steam for sterilization purposes.

WILL TRIPLE FACILITIES

Establishment of this new sanatorium will more than triple the county's ability to care for tuberculosis patients, with rooms for 60. At present there are about one-third that number being cared for at Woodlawn Sanatorium.

Muskegon County residents will, of course, be given preference in being accepted for treatment, but residents of other counties will be taken whenever it is possible to accommodate them.

Since the sanatorium is to be operated by the county, with state aid, it is open to any resident who requires treatment. A fee will be charged, but those unable to pay will be cared for at county expense.

Dr. Reineking, who has been here for some time superintending the purchase and installation of equipment, has had wide experience in tuberculosis sanatorium work, having come to Muskegon from Rockford, Illinois, where he was superintendent and medical director of the Rockford Municipal Sanatorium.

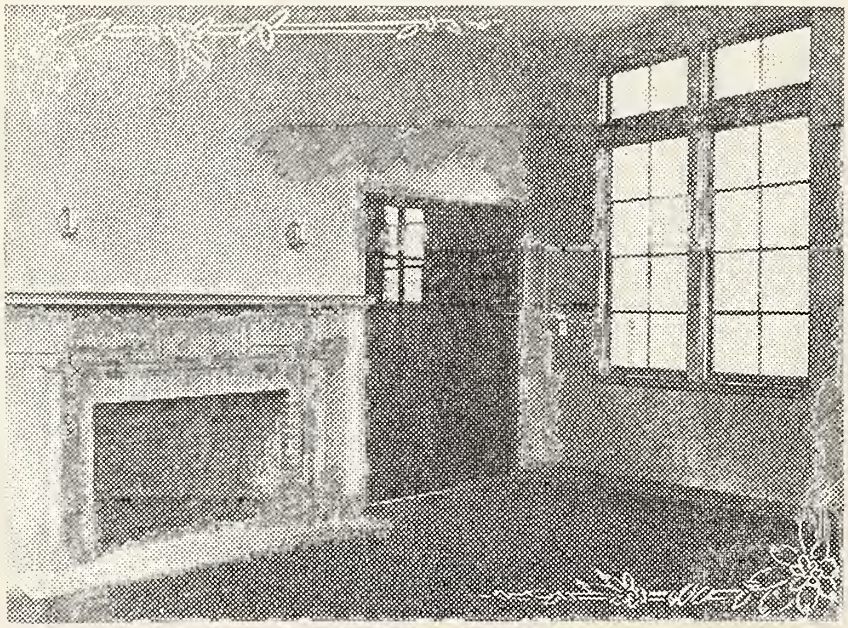
BOARD OF TRUSTEES

Working with him is the board of trustees, appointed by the board of supervisors. This is composed of Dr. George LeFevre, J. Arthur Dratz, Martin Schoenberg, A. B. Curtis, E. D. Prescott and Dr. Archibald Hadden.

"The day has passed," said Dr. Dratz, "when any sort of building will do for the treatment of tuberculosis. It requires specialized treatment. The board of trustees, going carefully into the purchasing of the furnishings for this building, is sparing no necessary expense in obtaining the best."

And so today the finishing touches are being placed on Muskegon County's new Tuberculosis Sanatorium. It is not yet ready for public inspection, but will be thrown open within a short time.

For a distance of 100 feet all around the building, all the trees excepting a few of the finest, will be cleared away, giving the hospital the benefit of all the light. There will be no obstruction on the south side at all, while the front will be partially screened from the public highway.



—PHOTO BY RADIUM STUDIO

This fine, sunny recreation room on the south side of the new county sanatorium, between the two big open-air porches, will be fitted up as a recreation room for the patients. Three sides of it are crowded with windows; the other has the fireplace, with bookcases on the left.

TO BUILD DRIVES

Fine drives leading from M-24 will be laid within the month, the county road commission having received recommendations from the trustees. Plans already are being made for these drives, which will be of crushed stone.

In the main reception hall of the building appear two bronze tablets.

One of them reads: "In Memory of Gladys Tennant Forster, a Founder of the Muskegon County Tuberculosis Association and its First Executive Secretary."

The other bears names of the committee which planned the building—Dr. George LeFevre, J. Arthur Dratz, Tom J. G. Bolt, Fred Ridout, R. J. Buck, F. S. Forster, architect, and Eric Strom, contractor.

The Journal
OF THE
Michigan State Medical Society
ISSUED MONTHLY UNDER THE DIRECTION OF THE COUNCIL

Vol. XXIV. GRAND RAPIDS, MICH., AUGUST, 1925. No. 8

Original Articles

FURTHER SOUTH AMERICAN OBSERVATIONS

JAMES T. CASE, M. D.
BATTLE CREEK, MICHIGAN

In the fall of 1922 I had the pleasure of making a trip along the Atlantic coast of South America as far south as Buenos Aires. A report of this trip appeared in The Journal of May, 1923. On that occasion I formed one of a party of about one hundred and seventy Fellows of the American College of Surgeons who, with their families, constituted the passenger list of the S. S. Van Dyck during a ten weeks' cruise, which included short stops at Havana, Panama, Cartagena (Colombia), Carcacas (Venezuela), Rio de Janeiro and Sao Paulo (Brazil), Buenos Aires (Argentine), and Montevideo (Uruguay). Some of our party crossed the Andes from Buenos Aires to Santiago and returned by the west coast, but it was not my privilege to do so at that time.

Last December there was celebrated in Peru the hundredth anniversary of the battle of Ayacucho, which occupies the same place in the history of the South American republics as the battle of Yorktown in this history of the United States. Ayacucho marked the last of the long series of battles in the struggle of the South American republics to insure their freedom from Spain. This hundredth anniversary was a notable occasion in South American annals. All the independent republics of the New World, in addition to a number of countries in Europe and Asia, sent large delegations of important representatives to assist in this fete. General Pershing, who headed the delegation from the United States, was lionized by the Peruvians as well as by various other South American countries which he later visited.

The occasion of this celebration was deemed suitable for calling the Third Pan-American Congress, which was held on December 20th to January 5th, immediately following the close of the Ayacucho celebration. This was really the sixth American scientific congress in which the Latin Americans figured largely. The first three congresses were called Latin-American congresses; then it was decided to invite the United States to participate, and what was really the fourth congress was called the First Pan-American Congress. The Second Pan-American Congress was held in Washington, D. C., and the next one, which will probably be called the Seventh American Congress, will be held in San Jose, the capital of Costa Rica.

There was a large delegation from the United States, including Dr. L. S. Rowe, Director-General of the Pan-American Union; Mr. John O. La Gorce, representing the National Geographic Society; Dr. Samuel M. Lindsay, of Columbia; Dr. John D. Long, of the Public Health Service; Mr. Wilson Popenoe, of the United States Department of Agriculture; Dr. Albert Sauveur, Metallurgist of Harvard; Dr. Marshall H. Saville, of the American Indian Museum, New York; and Dr. James B. Scott, United States representative at the Versailles Treaty, an international lawyer of renown. There were also Dr. A. F. Blakeslee, of Cold Spring Harbor; Dr. Robert C. Murphy, American Museum of Natural History, New York; Dr. Edward V. Huntington, Of Harvard and some twenty others. Dr. John D. Long and your reporter were the only medical representatives in the official delegation from the United States. The writer was selected to represent the American College of Surgeons in order to follow up the work which had been begun by the visits of Dr. Wm. Mayo, Dr. Franklin Martin, Dr. Thomas Watkins, and the members of the Van Dyck cruise

*Dr. Narancio is the Counselor of Health for the Government and a member of the Cabinet and a very prominent figure both professionally and politically.

towards establishing better relations with the South American medical profession. The writer went as the official delegate also from the United States Army Medical Department, and Northwestern University, as well as the Battle Creek Sanitarium.

The Scientific Congress met in Lima, Peru, its headquarters being located at the splendid new Hotel Bolivar, which is up to date in every respect. The Congress was divided into various scientific sections, including medicine, pharmacy, physics, mathematics, biology, law, engineering, political economy, archeology, etc.

There were also held at the same time sessions of the First Pan-American Standardization Congress, a very important move, especially from a commercial standpoint, toward unifying the standards accepted in the various countries. One moot question at this congress was the effort made to bring about action leading to the acceptation of the metric system in the United States. Every medical man will appreciate why the metric standard should be adopted in this country. Of course such a move will be expensive for industrial United States, yet surely not so expensive as is claimed by agents of some of the larger firms who are giving talks to dinner clubs and in other ways getting before the public the alleged difficulties in the way of adopting the metric system. It is claimed that all the blueprints and plans will have to be re-drawn to the metric scale. This is surely not true. In no case does the size of instruments or tools need to be changed in the slightest fraction of a hair's breadth. Tables could be constructed whereby the conversion from the many different systems now used for mensuration in the United States into the metric system could be made with a very small amount of labor. These measurements could be indicated on the blueprints already in use. We are told by a well-known engineer that the tools are constantly being made over anyhow, that there are seven or eight different standards of measurements now in use in the United States, and that really it would be a great advantage to reduce all these to terms of one universal metric system. The Standardization Congress proposed to allow ten years for the change. The matter has not been finally settled. Our private opinion is that every physician should lend his influence to the movement already on foot in this country toward the universal adoption of the metric system.

There was also held at this time the Second Pan-American Congress of Women, whose work promises to be very important, especially for the women of South America.

We devoted our time to the medical and surgical sections of the Pan-American Scientific Congress. These were held in the school of medicine in the university of San Marcos, the oldest university in the New World. Dr. Guillermo Gastaneta, dean of the faculty of medicine, was chairman of the surgical section, but, as is customary in these congresses, the personnel of the chairman was changed daily and sometimes twice a day, the chair being offered to various ones of the foreign delegates.

The writer's personal contribution to the surgical section of the Congress was a paper entitled, "Standardization and Improvement of Hospitals," in which he described in detail the scheme of hospital standardization devised by the American College of Surgeons and used so effectively in the United States and Canada, that whereas only 12 per cent of the hospitals of one hundred beds or over were able to qualify as meeting the minimum standard in 1918, more than 85 per cent of such hospitals now meet the standard. The principles which govern the application of this standard to hospitals were elaborated and an effort made to show our South American confreres how they could apply this standardization method to their own hospitals and how it would immeasurably improve some of the unfavorable conditions under which they are now working. The paper was discussed by a number of the delegates, especially by Dr. Long, representing the United States Public Health Service; by Dr. Toralvas, Director of the Calixto Garcia Hospital in Havana; by Dr. Iribarne, a prominent gynecologist of Buenos Aires and dean of the faculty of medicine, and by others. A motion was made and passed unanimously by the section, putting the section on record as approving this method of hospital standardization and asking the Congress as a whole in its final plenary session to approve it and request each of the governments represented to take immediate steps to realize a similar campaign for hospital betterment. This is a great forward move for providing improved hospital service in South America.

In the past, North American observers have criticized severely the lack of nurses and the lack of protection against flies in the hospitals of the southern continent. The writer can report very definite improvement

in both these defects. A number of new nursing schools have been established since the cruise of the Van Dyck in 1922. A number of new hospital buildings have been put into commission since that time, and they are up to the minute, providing all the facilities that one could wish for surgery under ideal conditions.

The new large Arzobispo Loayza Hospital for Women is nearing completion in Lima. The dedication ceremony was held under the chairmanship of the President of Peru, Leguia, on December eleventh, last. It is a fire-proof, earthquake-proof structure of reenforced concrete ,built along the most modern lines and not to be matched elsewhere in Latin America, besides embodying certain features not to be found anywhere else in an institution of its kind. The hospital covers an area of sixty-four thousand square meters and the buildings are grouped about a central garden, at one end of which is the facade building and at the other the chapel. Loayza was the first Arch-bishop of Lima.

Several important new hospitals are under construction in Buenos Aires and in Montevideo. Dr. Pou y Orfila and several associates are building a large new private hospital in Montevideo. There has recently been put into service in Rio de Janeiro a very large institution comparable in many respects to the Battle Creek Sanitarium, though not nearly so large. Uruguay is already noted for the number of completely and even luxuriously equipped private hospitals into which the casual medical visitor has no opportunity to get a glimpse unless he is specially favored by friendship with the doctors themselves.

In Brazil new public hospital construction has been brought to a standstill by the revolution of last year. The additional expense incurred by the government in fighting the rebels has led the president to call off all progress on public buildings for three years, until the war deficit can be made up.

I had the opportunity of spending one day in Sao Paulo, the principal seat of the rebellion of last year. The marks of the damage done by the rebellion have been wiped out, and one needs a guide to find even the occasional patch still not completely covered where walls damaged by shell fire have been repaired. Sao Paulo is a healthy rival of Rio de Janeiro. It reminds one very much of Chicago. It has more than a million inhabitants, the growth in population having been phenomenal. There is a very important center of United States and British interests in Sao Paulo, which is occupied chiefly with the coffee and manufacturing projects.

Let us take up the story again at Lima. There is no need of occupying this note with a recital of all the topics discussed in the medical section of the Congress. There was a liberal proportion of time devoted to subjects of special interest to those living in the tropics. Hyperthyroidism, cancer, tuberculosis, venereal diseases and matters of surgical technic all came in for discussion. Clinics were held in several of the hospitals of Lima, especially by Doctors Gastaneta, Aljovin, Denegri, Grana, and Odriozola. A visit was made to La Colonia, a government hospital for mentally deranged. Trips were arranged to Pachacamac, a ruined holy city of the Incas, located about thirty miles south of Lima. The government of Peru also arranged free trips for the delegates into the interior of Peru, even as far as Cuzco, the ancient capital of the Incas. This latter trip required about two weeks and would have been a great treat had the writer had the time at his disposal. There was also opportunity to interview Dr. Campodonico, a Fellow of the American College of Surgeons and the senior radiologist of Peru. Others who were especially kind were Dr. Lanari, Director of the Cancer Institute and leader of the National Society for the Control of Cancer; Dr. Becerra and Dr. Revoredo, assistant to Becerra.

The hospital in which we saw the most satisfactory surgical technic was the British-American Clinic located at Bella Vista, several miles outside of Lima, under the able direction of Dr. E. A. MacCornack, who, with his wife, has shown great devotion and unselfishness in his effort to build up this mission hospital. It is extremely difficult for foreign physicians to obtain the right to practice in these South American countries. The instinct of self-preservation has led the authorities to pass very stringent laws making it exceedingly difficult indeed for anyone not a graduate of the native schools to qualify for practice, but welcome word has come of Dr. MacCornack's success in overcoming these difficulties.

The question of screen protection against flies is a very trying one in Peru, especially near the coast. Dr. MacCornack's hospital is the most thoroughly protected of any, and scarcely a fly was to be found, but the expense for screens is very great. I was told that even the copper screening is so

rapidly damaged by the elements that it is necessary to replace copper screening once in eight months. Another great obstacle in the way of using screens is the age-old prejudice of the Catholic Sisters against dark rooms or wards for patients. In their laudable ambition to admit all possible daylight and sunlight to their patients' rooms they find it difficult to yield to the placing of screens, which do measurably darken rooms. In some of the hospitals where the fight against mosquitoes has made an impression and certain wards have been screened off, we not infrequently found the screen doors and windows propped open to admit more light.

As a token of appreciation of the visit of so many foreign physicians, the National Academy of Medicine of Peru held a special meeting at which corresponding membership was bestowed upon some of the delegates. The Peruvian surgical society which had previously honored Dr. W. J. Mayo and Dr. Franklin H. Martin by membership, also held a special meeting at which honorary membership was conferred upon one from the United States and two from the Argentine.

The Congress certainly did much to strengthen the cordiality of the friendly relations already existing between the various republics of the new world. The chief discordant note was due to the absence of the Chilean delegates. Because of the difficulties dating back forty years to the war of the Pacific from which Chile emerged victorious over Bolivia and Peru, there has been a notable lack of cordial relations between these countries. As spoils of war Chile retained a very important portion of seacoast that formerly belonged to Bolivia, including the important port of Antofagasta, besides three provinces formerly belonging to Peru. Two of these provinces, Tacna and Arica, were held conditionally, the final ownership to be settled by a plebiscite after ten years. Just now, more than forty years after the conclusion of hostilities, is this delayed plebiscite to be held, thanks to the arbitration of President Coolidge, who consented to act as arbitrator after having received formal request from the two opposing governments. Undoubtedly the cordial relations between the United States and Peru have been somewhat embarrassed by our president's decision, for, of course, he could not please both sides of the controversy. It is to be sincerely hoped that permanent peace will result from the plebiscite, to preside over which General Pershing has been appointed.

By invitation, the writer gave in Lima four clinical addresses in Spanish, two before the medical department of the university and one each before the Peruvian Surgical Society and the Peruvian Academy of Medicine respectively. Similar invitations were forthcoming for visits to the universities of Santiago, Buenos Aires, Cordoba, Montevideo, Rio de Janeiro, and Sao Paulo. Some of these invitations it was possible to accept by making a round about return journey to the United States, going first by ship to Santiago, the Trans-Andean Railway to Buenos Aires, and by ship to Montevideo and Rio. In Chile, Dr. E. P. Reed, a well-known Chilean of English ancestry, Dr. Sepulveda and other Fellows of the American College of Surgeons, with the special assistance of Professor Ducci, secretary of the faculty of medicine of the University of Santiago, did all in their power to welcome the writer and to afford him every facility for observation of hospitals and hospital work. In all, sixteen addresses were given in Spanish under the auspices of the Faculties of Medicine of Lima, Santiago, Buenos Aires, Montevideo, and Rio de Janeiro. The traditional cordial welcome of the Spanish was shown by still greater hospitality on the part of old friends who were glad to see us once more in their South American cities. Since one of the writer's commissions as delegate was from the Surgeon General of the United States Army, the Surgeon General of the Argentine military medical service was especially cordial and took particular pains to afford official welcome to the city of Buenos Aires, as well as opportunity for a visit to the military hospital and a formal conference before the medical officers of the Argentine military service in Buenos Aires.

In Montevideo, Dr. Atilio Narancio*, who last summer was a patient at the Battle Creek Sanitarium, Dr. Garcia Lagos, Dr. Nin-y-Silva, and Dr. Barcia took charge of the visitor and occupied every moment of his stay.

In Rio de Janeiro the secretary of the National Academy of Medicine, Dr. Da Fonesca, and Dr. Mendonza, dean of surgeons, Dr. De Castro, the dean of the faculty of medicine, and others were very cordial in meeting the steamer and arranging for formal meetings.

The outstanding radiologists with whom the writer had opportunity to come in per-

sonal contact were: in Chile, Professor Ducci; in the Argentine, Doctors Lanari, Heuser, Carelli, Saralegui, and Merlo Gomez (radiologist to the military hospital); in Montevideo, Doctors Barcia, Mezzera, Butler and Cunha; in Rio de Janeiro, Doctors Duque Estrada, Campobello and Manuel Abreu; in Sao Paulo, Dr. Rafael Barros.

Many of the South American doctors speak English; practically all speak French since many of the textbooks studied are in French. Spanish or French will enable one to get along very well also in Brazil, but of course the national language of Brazil is Portuguese. But it is most desirable that physicians of the United States should familiarize themselves with the language of Cervantes and some day make a personal tour of these very interesting countries.

ENDEMIC GOITER, A PRECANCEROUS LESION*

FREDERICK A. COLLER, M. D.
HOWARD B. BARKER, M. D.
ANN ARBOR, MICHIGAN

Serious consideration of the predisposing factors of thyroid malignancy is necessary because of the difficulty with which a definite clinical diagnosis of the condition can be made early enough to offer a fair chance of cure. In any case in which a definite diagnosis of malignancy of the thyroid is possible surgical removal of the entire process is impossible and other forms of treatment offer no more hope for permanent cure. Wilson[1] states that of 290 cases observed at the Mayo clinic, 70 per cent were not diagnosed clinically. Therefore, as with the breast so with the thyroid, possibility of malignant change must be kept in mind for every benign growth of the thyroid. Malignancy of the thyroid must be anticipated and suspected, not diagnosed.

Opinion is undivided on the point of prognosis in malignancy of the thyroid. While the mortality rate is very high when all classes are grouped together, it is found that those cases in which a positive clinical diagnosis is possible show an early fatal ending regardless of the type of treatment used. The cause for unfavorable results in these cases is evident when one considers the nature of the condition. Malignant degeneration begins deep in the gland and becomes evident by clinical signs and symptoms only after the process has penetrated the gland capsule. This spread beyond the capsule of the thyroid at once means the involvement of adjacent structures which are of such a type that removal is inadvisable or impossible . Many cases in which malignant change is not suspected before operation will, at operation, be found to have a far advanced neoplasm already spread beyond the capsule of the gland on the posterior surface. Balfour[2] reports an early fatal outcome in 65.6 per cent of 103 cases operated upon at the Mayo Clinic, while De Courcy's[3] 9 cases diagnosed before operation showed recurrence and early fatal ending in 100 per cent. The latter operated upon 12 cases for benign enlargement of the thyroid in which a positive diagnosis of malignancy was made on microscopic examination. Of course, two showed recurrence within two years after operation. Herbst[4] in reviewing the outcome in sixty-two patients operated upon at the Mayo Clinic for carcinoma of the thyroid found but 5 per cent or three patients without recurrence after the five years period and 30.6 per cent of the patients in whom there was no recurrence at the time of the report. All of the latter, however, had been operated upon less than five years before. The same author reports 19 patients with sarcoma of the thyroid who had been operated upon. Eighteen of this number had died of the condition in from two to twelve months after operation. We are unable to report any patients from the University Hospital in which a positive clinical diagnosis of malignancy of the thyroid was made before operation who has survived the eighteen months' period after the time of diagnosis.

It is evident, then, that the hope in the treatment of malignancy of the thyroid lies in prophylaxis and not in cure after the condition has become established. If there is a lesion of the thyroid or other factors which predispose to the development of malignant degeneration, these must be dealt with rather than delay until malignancy is obvious and chance of cure remote.

The more commonly accepted predisposing factors to the development of neoplasms, in general, are chronic irritation, trauma, and heredity. Serious trauma to the neck region is uncommon and there is no case on record in which there was a striking sequence of malignancy of the thyroid following injury to the neck. Again, heredity alone does not seem to be an important factor in the development of the condition. There are grounds for believing that chronic

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irritation may be a factor. Thus Ehrhardt[5] and Balfour[2] believe that irritation resulting from secondary degenerative changes; inflammation, calcification, cystic formation, hemorrhage and necrosis; occurring in old goitres is a causative factor in thyroid malignancy.

Certainly the relationship of thyroid malignancy, and especially carcinoma, to other pathological conditions of the gland is worthy of consideration. A few cases of gland malignancy associated with exophthalmic goitre have been reported by earlier writers. It is not surprising that this supposed association was observed since overactivity of the gland with symptoms similar to those of a mild exophthalmic goitre may be present in cancer. These few cases of carcinoma developing in exophthalmic goitre were described at a time when no differentiation was made between adenomatous goitre with hyperthyroidism and exophthalmic goitre consequently interpretation of the type of goitre can be questioned. A review of the goitre cases seen at the University Hospital during the past 15 years reveals no instance in which cancer of the thyroid has occurred in a case of exophthalmic goitre. Wilson[1] and Kocher[6] have remarked the absence of any relationship between cancer and exophthalmic goitre while Herbst[4] failed to find any instance of association of the two conditions in 5,876 exophthalmic goitres. The statistics of Simpson[7], who has recently reviewed the pathology of all thyroid malignancies examined in the Department of Pathology, University of Michigan, shows no case in which exophthalmic goitre can be considered a factor in the development of the cancer.

Yet, of 103 cases reported by Balfour[2], in no case could it be definitely established that the malignant degeneration had occurred in a normal thyroid gland. It is the endemic goitre, then ,which must be considered the pre-cancerous lesion of the thyroid. Kocher[6] called attention to the more frequent occurrence of thyroid malignancy in endemic goitre regions while Bauman[8] stated that a map of the various countries showing the prevalence of goitre serves to visualize the frequency of thyroid cancer. The full truth of such statements must be borne out by close study of clinical records and histological findings. Balfour[2] found that almost every case of a series of 103 malignancies occurred in pre-existing and long standing goitre. Of Kocher's[6] series of 400 cases, 80 per cent developed in patients having had a goitre for several years before the onset of the symptoms of malignancy. One hundred and fifty-nine of 260 malignancies of the gland studied by Wilson[1] had had thyroid enlargement for five years or more.

Histological studies bear out the clinical observations to the point of definitely condemning the endemic goitre as the precursor of and the seat of malignant degeneration in the thyroid. Graham[9] reporting the histopathology in a series of cases of malignant epithelial tumors of the gland examined at Lake Side Hospital, Cleveland, states that 90 per cent of these had their origin in pre-existing adenomata. Simpson[7] finds 100 per cent of carcinomas of the thyroid examined in the Pathology Department of the University of Michigan to have arisen in colloid or adenomatous (endemic) goitre.

The goitre endemic in many geographic areas is usually first noted at or before puberty when it may show mild hyperplastic changes which in time give place to the colloid form. The stimulus to goitre formation which has caused the colloid enlargement of the gland at the same time initiates the development of the adenomata which during this period are not usually evident. The origin of the adenomata is not definitely known, but that the stimulus is the same as that producing colloid goitre seems fairly evident.

As the adenomata grow there usually develops a more or less distinct capsule and the older central parts of the tumor undergo degenerative processes while growth proceeds at the periphery. Two main forms of development occur; one with large amounts of colloid in the adenoma, the adenomatous colloid goitre; the other with a dense appearance in which the alveoli, of a foetal form, are imbedded in a myxomatous stroma, the foetal adenoma. Both forms undergo involutional processes and are the seat of degenerations of many types, haemorrhagic, fibrous, cystic, or calcareous and all types may be present in any one goitre. These degenerations when present do not represent a new type, but are all variations of the adenomatous goitre.

The adenomata, characterized by their nodular feel, may be evident during the period of growth through puberty and adolescence, but usually are not common until the latter part of this time. They have increased in size and in their ratio to the colloid which is diminishing, thus becoming evident.

Their growth after the age of 25 years has

become well established and from this time they dominate the goitre picture. The great majority of all endemic goitres contain adenomata and their history beyond 25 years is that of the adenomata.

Pauchet[10] states that "cancers of the thyroid develop on old goitres and never occur in the normal thyroid. The goitre constitutes the precancerous lesion as does a leukoplakia, an adenoma of the breast, a naevus or an ulcer of the stomach. Fibrous and exophthalmic goitre become malignant only rarely; nodular goitre often becomes malignant."

One, then, must assume that thyroid carcinoma arises as a direct change in all types of the long standing adenomatous goitre in much the same way as the fibro-adenoma of the breast becomes malignant. At least 50 per cent of the reported cases of cancer of the gland have been operated upon for adenomata and early malignant changes were discovered in these on microscopic examination. Ehrhardt may be correct in his contention that irritation is the chief factor in bringing about this cell change. Thus cysts, deposits of lime salts, and areas of necrosis, common secondary degenerative changes of thyroid adenomas, may well play the part of irritant agents. Regardless of the details of the mechanism the important clinical fact is that endemic goitre condemns itself by its close and constant association with malignancy of the gland.

But one may ask if cancer of the thyroid is of sufficient frequency to justify great concern. There is no question that the condition is much more frequent than is generally supposed. Wilson[1] received, in personal communications, from sixty-seven American surgeons, reports on five times as many cases as could be found in the American Medical literature up to that time. Also one must consider that in propably 25 per cent of cases of thyroid cancer, marked increase in the size of the thyroid does not occur and the patients go on to death from metastasis without discovery of the primary lesion. Binnie[11] has reported a case of metastasis to the intestinal tract without the primary thyroid lesion being discovered until autopsy and the distant metastasis to bones is common knowledge.

The methods of computing the frequency of occurrence of the condition has been both confusing and misleading. Muller and Speese[12] gathered their statistics on a basis of percentage of autopsy material showing thyroid malignancy. Kocher and others have made up their statistics on the basis of the percentage of all goitre cases (exophthalmic and endemic goitre) which showed the condition. We propose to express the frequency of the condition in relation to endemic goitre, since exophthalmic goitre has been shown to bear no relationship to malignancy. Charts No. 1, 2 and 3 give the statistics from the various clinics, in tabular form, expressed on the basis of autopsy material, total number of goitres, and endemic goitre. We consider that the true frequency of the disease for practical clinical purposes is expressed in terms of endemic goitre. Our attention has been called to the frequency of malignant degeneration in adenomatous goitre because of the 150 endemic goitres removed during the past year, 10 per cent have shown malignancy. The exophthalmic goitres are excluded from these statistics since cancer has not been found in any of these. The high percentage of thyroid cancer seen at the University Hospital is explained by the large number of persons above 40 years of age who come to the clinic with long standing adenomatous goitres. We believe that with an increase in the number of endemic goitres examined in persons in the fourth, fifth and sixth decades of life there will be a marked increase in the number of thyroid malignancies diagnosed. Thus, if one should consider the percentage occurrence of malignancy of the gland in the endemic goitre patients above 35-40 years of age the true danger from this source would be expressed.

After the age of 25 the adenomata are established and no type of treatment short of operative removal will permanently influence them. Operation prior to this time is rarely indicated except for marked pressure symptoms. Malignancy of the epithelial type seldom occurs before the age of 30. Prophylactic treatment of this precancerous lesion consists in removal of all adenomatous tissue from the thyroid as soon as diagnosed after the age of 25.

CONCLUSIONS

1. Malignancy of the thyroid is much more common in endemic goitre districts than is generally supposed.
2. The majority of endemic goitres contain adenomata in persons above 25 years of age.
3. Adenomatous goitre is the precancerous lesion of the thyroid.
4. Because of the difficulties of early diagnosis of thyroid cancer and the

slight chance of cure when the clinical diagnosis is made, adenomatous goitre should be removed, when diagnosed, after the age of twenty-five.

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CHART I.

INCIDENCE OF MALIGNANCY TUMORS IN NECROPSIES BY WILSON[1]

Source and Locality	Necropsies	Tumors	Ratio
Muller and Speese—Berne	7,641	82	1:93
Muller and Speese—Vienna	18,147	50	1:362
Muller and Speese—Prague	7,700	17	1:452
Wilson—Rochester	3,868	13	1:297
Atlantic Coast—Baltimore	26,375	14	1:1883
Pacific Coast—San Francisco	2,966	14	1:211

CHART II.

INCIDENCE OF MALIGNANCY IN GOITRE

Source	No. of Goitres	Type	Malignancies	Per cent
Kocher	3,500	All	348	9.8
Wilson	16,547	Endemic 10,680 Exoph. 5,867	290	Endemic 2.8 Total 1.6
Crile	3,100	All	80	2.6
Simpson	1,282	Endemic 1,153 Exoph. 129	50	Endemic 4.3 Total 3.9

CHART III.

RELATION OF MALIGNANCY TO GOITRE

Source	Malignancies	Pre-existing Goitre	Per cent
Ehrhardt	200	104	52
Muller and Speese	42	25	59
Wilson	290	159	55
Crotti	?	?	90
Graham	?	?	90
Simpson	50	50	100

PATHOLOGIC CONDITIONS OF THE HEARING ORGAN WITH SPECIAL REFERENCE TO THE DEAF MUTE*

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Among the many branches of medicine, otology is beginning to fulfill its duty to adults and to children in connection with their education. Today I shall confine myself to the otologic aspect of the effort in regard to school children. This circumstance has found expression all over the world. Detroit has for years worked along these lines, and the wisdom of an enlightened school board has resulted in in the establishment of a model school, the Detroit Day School for the Deaf, under the authoritative leadership of Miss Gertrude Van Adestine. Through the co-operation of the Detroit Board of Health with the Board of Education, a clinic has been added to the School for the Deaf. We have only begun the work.

Anxious parents are very much concerned about the fate and future of their handicapped children. The great efforts of the teachers are universally appreciated by the parents. The parents are naturally interested in the questions whether their child is deaf and whether anything can be done to overcome the deafness. Furthermore, the question arises, what can be done for the child if deafness is permanent. The latter question is without the scope of my remarks. Suffice it to say that very much can be done for such a child. A visit to any School for the Deaf will convince anybody of this fact.

When a child is brought to the School for the Deaf it is the first duty of the physician in charge to convince the parents that the child is deaf, or hard of hearing to a degree, that it is impossible for the child to acquire sufficient knowledge in an ordinary school. It is natural that the feeling of parents first revolts at the idea that their child is so handicapped that it needs a different kind of instruction than an ordinary child. The splendid Detroit Day School for the Deaf, with its cheerful staff and equipment, greatly facilitates the decision of the parents to see the only and proper way. The radiant countenances of pupils, of all school ages, and their happiness makes this step easy. The physician in charge of the clinic must combine an understanding of the feelings of the parents and the child with the demands of medical science which prescribes for him the duty to establish the condition of the child's hearing, to learn underlying causes of the defect and to call to the attention of the parents the

*Read before the Staff Meeting of the North End Community Clinic, May 27, 1925.

indicated remedial measures, if such are in place. These considerations revert themselves to a simple demand, namely, to make a diagnosis of the condition of the ear of the child. This subject has naturally engaged the minds of many otologists. An admirable and concise treatise of the matter is the booklet of Dr. James Kerr Love (Diseases of the Ear in School Children. An Essay on the Prevention of Deafness). In our clinic in the Detroit Day School for the Deaf we follow a certain routine in conformity with that in other places. At some future time, some such routine will probably be standardized all over the country. Our clinic is well equipped. We also have a turning chair for labyrinthian tests, a set of tuning forks and an audiometer. We examine the ears and the throat and pay attention to the mental condition of the patient. Inasmuch as the hearing organ itself is concerned we examine the ear in the usual way in reference to gross pathology and to function.

It is not necessary any more to call attention to the importance of the removal of adenoids and tonsils in children in connection with their influence upon the ear, either in connection with catarrhal middle-ear inflammation, or with the danger of suppurative middle-ear diseases. It is also not necessary to mention the accumulation of cerumen, or of trauma to the ear. I shall confine myself to the two outstanding causes of deafness, namely to hereditary and infectious diseases.

HEREDITARY

Lately Alexander and Fischer classified the cases from the etiologic viewpoint.

"The constitutional hereditary-degenerative form comprises all cases of intrafetal deafness with multiple deafmutism in the family and other degenerative symptoms in the ascendence, numerous stigmata and perhaps mental abnormalities. Many classic cases of this nature are found in asylums of the feeble-minded as mentally inferiors, or, as cases of idiotic inner ear affection. In a small number of cases of this category considerable hearing may be present at the time of birth. This is lost spontaneously or through sickness. These cases comprise the group of postfetal constitutional hereditary-degenerative forms.

"Among the individually acquired inner ear-acusticus-affections, the luetic is the example of a deafness acquired in fetal life. The positive Wassermann and somatic signs of hereditary lues determine this classification. The intrafetally acquired traumatic and acute infectious cases are classified by themselves.

"Among the cases of postfetally individually acquired inner-ear-acusticus disease those cases are understood in which the originally normal hearing has been lost in a healthy and hereditarily free individual by an inter-current disease, namely trauma, meningitis or other acute or chronic infections, etc. The difference in the nomenclature of "postfetal manifest" and "postfetal acquired," is based on the following. If deafness becomes postfetally manifest, it is understood that a new etiologic moment has not appeared, but the intrafetally effectual etiologic factors appeared postfetally. In postfetally acquired deafness a new etiologic factor appears. A third group must be added to these, a group in which a distinct hereditary-degenerative condition is present and in which a new disease has caused the more or less complete loss of hearing. In this group the inferiority of the hearing-organ plays a deciding part. Such an inferior hearing organ falls more easily a victim to hereditary lues, trauma and general infections. Alexander and Kreidl observed two children whose parents were relatives before they married. Both children had had normal hearing, but both became deaf after scarlet fever. The lowered resistance was responsible. The cases of postfetal deafness, after rickets in hereditary degenerative individuals, belong to this group."

Dr. Vera Uspenskaja, Meningo-encephalitic Findings as a Cause of Acquired Deafmutism. (Zeitschrft f. H. N. und Ohlkde. 9. 4p. 506 Jan. 20, 1925), admits "that Wittmaack's toxic acustic neuritis may exist in epidemic meningitis and typhoid fever, because in both toxins are created, but she cannot understand why we should think of such an hypothesis which can not be proven, when we find pathologic anatomical signs of grave destructions in the meninges, in the nerve and above all in the central nervous system. As proof may be cited the occurrence of defects of intelligence and idiocy in an epidemic of spinal meningitis in which 25 per cent of the patients became deaf. Among 539 idiots in Norway, 3.7 per cent became idiots in consequence of spinal meningitis. A primary labyrinthian affection cannot be assumed because deafness in spinal meningitis occurs during the first days. The author hopes that knowledge of these pathologic processes furnishes a direct indication for therapeutic action. In case of progressive hearing disturbance in typhoid fever a lumbar puncture should be made for diagnostic purposes, and if the suspicion for meningitis is confirmed, therapeutic lumbar puncture should be done. In epidemic spinal meningitis the antimeningococcus serum should be brought as near as possible to the acoustic nerves by the occipital puncture, which is nowadays generally introduced and not considered to be difficult. By

aid of a simultaneous lumbar puncture, a thorough flushing of the lumbar sac should be carried out."

These anatomically established facts point to the close connection between deafness and mental inferiority, not that inferiority, which is secondarily caused by lack of education of the deaf, a very important factor, but that inferiority which is due to a condition of the central nervous system and not amenable to any great degree of education. There are numerous such cases which must be differentiated from the others because these children cannot be benefited by the method of education in deaf schools and because they prove to be a handicap to the other children.

Hammerschlag has proven that without doubt consanguineal marriages are frequently causes of deafmutism. Hartmann (see Bezold's Textbook, page 69), reports five deafmute sisters and brothers whose parents, grandparents and greatgrandparents were first cousins. Berzold comes to the conclusion (301) that marriages of deafmutes may be permitted, but inter-marriage of relatives in whose families deafmutism or congenital deafness of one ear only has occurred must be absolutely cautioned against. Predisposition for deafmutism is also created by deafmutism of one of the parents, or both parents, but it is not great (Boenninghaus). Urbantschitsch quotes Wilde, who reported that in 1861, among 123 children of 98 marriages of deafmutes, only one child was a deafmute, and Mygge, who found a deafmute child in every 7th or 8th marriage when both parents were deafmutes, and in every 14th and 15th marriage when one parent was a deafmute.

Besides the before mentioned type of deafness, the acquired type, due to infectious diseases is the most important. Love (p. 15), in his series, attributes 10 per cent to scarlet fever, 8 per cent to measles, 3 per cent to diphtheria, and 2 per cent to whooping cough. Kerr Love remarks that these percentages are certainly too low. As Kerr Love's school clinic became better organized, more careful inquiry was made as to the cause of middle-ear suppuration, by the nurses. During six months ending November, 1916, 23.7 per cent of the cases of middle-ear suppuration were found to be due to measles, and 15.8 per cent to scarlet fever. The measles and the scarlet fever cases were the most intractable to treatment, and many of the cases which had to be sent to a hospital for operation were due to these two diseases. Practically all of the cases had been dismissed from the infectious diseases hospitals with discharging ears. It is worth noticing here, says Kerr Love, that many such cases are dismissed with discharging ears, and actually give rise to fresh cases of scarlet fever. Some years ago he operated upon a child under the following circumstances: The child came from an infectious diseases hospital in Glasgow during the thirteenth week of scarlet fever. During the thirteen weeks the child's sister had been on holiday in an Ayrshire town. The children returned to their home in Glasgow on the same day. They slept together for one night. On the second day after their return, Kerr Love was called in by the family doctor to operate on the scarlet fever patient for mastoiditis, which had developed in the meantime. The patient made a good recovery, but the other child died of malignant scarlet fever.

It is very important to establish whether a child is totally deaf or whether it still posses some remnants of hearing. Bezold (p.301-302), had tested up to 1898 276 organs of hearing of deaf mutes. Of these, 79 were totally deaf. The others had remnants of hearing of various extent. Both ears were totally deaf in only 27 pupils, or 19.7 per cent of those 138 pupils. Small remnants were found in 58 pupils. The other 53, or 38.4 per cent, showed such extensive remnants of hearing distributed over a large part of the sound scale that they were not different from a large number of adult hard-of-hearing people with whom everybody can converse very easily. It becomes evident that by far the most important part of the tone series for the understanding of speech is the part from b^1 to g^2. This fact makes it imperative that the remnants of hearing should be utilized to the utmost. While, in my opinion, a destroyed sound-percepting apparatus remains destroyed, the sounds which can still be perceived can be made the basis for further instruction. The amplifier should be employed to very great advantage in order to save human energy. The teacher should use an ordinary telephone and the sound should be amplified either with a radio set or otherwise. The eyes of the deaf require great consideration, because in learning to read lips, great demands are placed on the eyes. All pupils should be tested especially for astigmatism. Moving pictures, many times magnified, showing the different movements of the mouth, in so far as this can be done in this manner, should be employed to facilitate the work. All modern advances of technic should be employed in the interest of efficient instruction in order to save time and energy. This applies to the teachers as well as to the pupils.

DON'T FAIL TO ATTEND THE MUSKEGON ANNUAL MEETING

A STUDY OF DUODENAL ULCER WITH SPECIAL REFERENCE TO SYMPTOMATOLOGY AND DIAGNOSIS*

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In this study 50 cases of chronic duodenal ulcer have been investigated in an effort to analyze the symptoms and clinical findings and to determine the frequence of their occurrence. The diagnosis was confirmed at operation in each case and any case revealing the presence of any other intra-abdominal lesion, save a rather commonly associated diseased appendix, was excluded from this series. Though the number of cases is small, it purposely includes only those cases treated on the surgical wards during the service of the writer at the University Hospital.

No common, chronic lesion of the abdomen manifests itself more definitely according to type than does a duodenal ulcer. Typically, a man 30 to 40 years of age complains of pain in the epigastrium occurring late in the digestive period, not generally associated with vomiting, but commonly accompanied by flatulence and acid eructations. Soda, food, and pressure are employed for relief with varying success. It is a chronic ailment of months to many years' duration, periodic in nature, and frequently of consequence only during the spring or fall seasons. Almost without exception a diet has been tried and generally with marked relief. On examination there is apt to be tenderness and slight muscle spasm in the epigastrium, the former by all odds the more constant. The demonstration by roentgen-ray examination of a persistent duodenal defect completes the picture. So classical is this picture, in fact, that exceptions may be overlooked, and if this study has a justification it is to emphasize these exceptions and to induce a wider recognition of their occurrence.

In this series there were 42 males and 8 females, the average age was 40 years. Pain in the epigastrium, almost invariably indicated by the patient's finger placed on the epigastrium, was the outstanding complaint in 42 cases. In 5 cases the pain had occurred in the right upper quadrant, in 1 case it had been entirely confined to the region of the sternum, and in another it had been described as general throughout the abdomen. Vomiting as an immediate complaint was mentioned by 25 per cent of the patients. Other less frequent complaints were flatulence, dyspepsia and acid eructations; these were outstanding in 20 per cent. In one case with a recent subacute perforation of an ulcer, there had been repeated convulsions, and in another a grave toxic psychosis had developed.

Fitting into the classical picture 70 per cent stated their pain came from 2 to 4 hours after meals, rarely it was described as a hunger pain alone. In 10 per cent the pain had been either constant or entirely without relation to meals and in 20 per cent it had come within 15 to 30 minutes after meals. Taking of soda had either completely relieved the pain or lessened the discomfort in 75 per cent, but in the remaining 25 per cent it had had no effect. The ingestion of food had brought relief in more than 50 per cent, while pressure on the epigastrium and induced vomiting relieved the pain in but an occasional case.

Vomiting had occurred in 64 per cent of the cases at some time during the course of the disease. In 22 per cent at the time of admission to the hospital there was vomiting of the obstructive type, while in 18 per cent it had occurred only a very few times. Hemetamesis was noted in 33 per cent, and melena in a slightly less proportion of cases.

The average duration of symptoms was 11 years, the shortest period being 6 months and the longest 50 years. In 25 per cent of the cases definite symptoms had occurred over a period of 20 years. In 85 per cent of the entire group the patients complained of recent symptoms more severe than those experienced in any previous attack. An average loss of weight of 25 pounds was noted in 60 per cent, in 25 per cent there had been no loss in weight, and in the remaining cases the record contained no information concerning this point. Cases with a definite loss in weight formed the bulk of the group suffering a recent severe attack.

Tenderness in the epigastrium was present in all but 3 cases. Muscle spasm was noted in slightly more than half the series, and a mass was palpable in two cases. In 4 cases there was visible peristalsis and in 1 case a dilated stomach was described.

From the roentgen-ray examination a diagnosis of duodenal ulcer without complications was reported in 46 per cent, while in 30 per cent of the cases the lesion was thought to be associated with an important degree of pyloric obstruction. In 12 per cent a diagnosis of chronic cholecystitis alone was made. In 2 cases duodenal adhesions were diagnosed and in 2 other cases chronic appendicitis was thought to be the primary lesion. It seems quite fair to give the roentgenologist credit for correct diagnoses in 85 per cent of the cases.

Pyloric obstruction, extensive induration and adhesions, perforation with protective adhesions to the pancreas, transverse colon, omentum or liver constitute the important

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THE SCIENTIFIC PROGRAM AT MUSKEGON WILL BE ENTIRELY CLINICAL

chronic complications of an ulcer. These complications were commonly manifested either by obstructive symptoms or increase in severity and prolongation of the pain. There was clinical evidence of pyloric obstruction in 22 per cent of the cases. While the roentgen-ray examination demonstrated obstruction or other evidence of important local complication in 30 per cent, the roentgen-ray findings were practically always confirmed at operation.

From the foregoing it is apparent that in the majority of cases our conceptions of the clinical characteristics of duodenal ulcer are correct, but variations from the classical picture occur and are apt to lead to a mistaken diagnosis. The most constant symptom of the disease, the time relation of pain to food, will deceive us in practically one-third of the cases. In approximately one case out of five the pain will come so soon after meals as to make a diagnosis of gastric ulcer an apparent certainty, while in an occasional case the pain will be constant or without any relation to the ingestion of food. The relief derived from the taking soda or ingestion of food is decidedly suggestive, hemetamesis and melena strengthen the case; all may be symptoms of peptic ulcer. But variations occur and the diagnostic value of these symptoms lies in their presence, rather than in their absence. The alleged greater frequence of vomiting and hemetamesis in gastric over duodenal ulcer is not disputed, but the difference is so slight as to be inconsequential in the localization of the lesion. Radiation of pain is occasionally noted, but with no degree of constancy.

Six of the cases presented the typical clinical picture of chronic gall-bladder disease, and in three of these the patient had suffered attacks interpreted as biliary colic. In each case a chronic duodenal ulcer was found without evidence of abnormality in the gall-bladder. In two instances a cholecystectomy was performed on suspicion of disease of that structure, but the tissue was reported normal by the pathologist. It should be added that the correct diagnosis had been made by the roentgenologist in three of these cases, and in the other three the gall-bladder had been diagnosed as the site of disease. Commonly the diagnosis rests between a duodenal ulcer and chronic appendicitis. These are difficult cases and may require repetition of the roentgen-ray examination, trial medical treatment and re-examination at a later time. If the roentgenogram of the stomach and duodenum are negative, an exploratory operation is indicated only in the presence of overwhelming clinical evidence of an ulcer.

While such cases have purposely been excluded from this group, there is not uncommonly found an additional important surgical lesion, notably, a gastric ulcer, a diseasesd gall-bladder, or a chronic diseased appendix. This multiplicity of pathology inevitably clouds the picture and its possibility should be kept in mind in the diagnosis of this lesion. Furthermore, it is to be anticipated that the symptomatology will change with the intermittent stages of healing and reactivation of an ulcer, hence an early history typical of duodenal ulcer should bear great weight, regardless of later manifestations. Efforts have been made to standardize the symptoms of these complications, but they are most accurately demonstrated and interpreted by the roentgen-ray examination.

While there is no desire to enter into the controversy of medical versus surgical treatment, I wish briefly to emphasize the importance of individual consideration in deciding the treatment best suited to a particular case. In this series 75 per cent of the patients were laborers. Other reports of larger groups show as high as 90 per cent whose occupations fall in this classification. Certain occupations demand definite working hours. One farmer may consider it no difficulty to return to the house at 11 and 2:30 o'clock for a light lunch; another deems it not only a definite economic loss, but finds the diet totally unsustaining. An active, young contractor spoke of two paramount objections to medical treatment, first, the fear of the consequence of a lunch at the club with business associates, and, second, the anxiety always attendant in undertaking a contract. He experienced no lack of courage in estimating the cost of material and labor, but an ever-present anxiety regarding the behaviour of his stomach necessitated a secret reservation as to his ability to be physically fit to execute the contract. The inconvenience to a working man in following a carefully scheduled routine of frequent meals and selected diet is so great that either the diet or the work must be sacrificed; it is usually the diet, with a resulting failure in treatment. A smaller group will be financially able to adjust themselves to this regime and it is here that the best results from medical treatment should be expected. A basic understanding of the clinical pathology is primary, but a proper evaluation of the economic and social status and personality of the patient is not to be ignored in the final determination of the type of treatment best suited to a particular case.

CONCLUSIONS

1. Duodenal ulcer is a chronic disease manifesting itself according to a classical picture.

2. Variations from this picture occur in approximately one-fourth of the cases, sug-

gesting most often a diagnosis of gastric ulcer, chronic cholecystitis, or chronic appendicitis.

3. Important chronic complications develop in the lesion, necessitating surgical interference in one-fourth of the cases.

4. Roentgen-ray examination gives a most accurate interpretation of these changes.

5. The type of treatment suitable to a particular case involves not only an understanding of the local lesion, but an evaluation of the social, economic and personal status of the patient.

THE UNTRAINED DIABETIC AND THE FAMILY DOCTOR—OUTLINING A SIMPLIFIED PROCEDURE*

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In regions remote from the cities there remain, and always will, many diabetics who refuse to go to a clinic for training. They present an awkward problem for the home doctor, himself neither a teacher nor dietitian, and in most instances frankly admitting ignorance of modern diabetic methods.

One great deterrent is the bugaboo of the measured diet: the doctor being unable to prescribe it, or the patient to carry it out. Hence, the seduction of insulin-by-mouth nostrums, or the lazy use of insulin without desugarization, obtaining deceptive improvement while the disease is growing worse under cover of it.

The diet requirements do sound intricate. One is unfeelingly informed that total calories must be computed: from height, weight, age, sex and present condition of servitude. Protein there must be, enough to maintain nitrogen balance, but not much more (which is rather meaningless to most of us). Fat must be in certain ratio to carbohydrate, else acidosis awes us. Carbohydrate is to be grudgingly allowed, in grams sufficient to be "anti-ketogenetic," yet if possible insufficient for glycosuria. Beside which we must consider bulk, economy, flexibility, endurability, etc.

Yet, for all the theoretical calculations of calories for the patient at rest, one has to make an "allowance" of, perhaps, fifty per cent, for his activities. Individual utilization of insulin is another large unknown, so we finally discover he must eat enough to hold his weight, whatever it takes: a matter of intelligent cut and try.

The method here outlined involves no mathematics, little laboratory work, and no special training on the part of either doctor or patient. No attempt is made to cover details and contingencies, but to present basic procedures found feasible even in the country. It is assumed that diagnosis has been confirmed, and that the conventional boycott of starches and sweets has failed to desugarize.

PRESCRIBING THE GRAMS

Any adult with a negative ferric chlorid test may be leisurely treated by diet only. He can be plausibly started on a daily ration of one gram of fat per pound, with half a gram each of both protein and carbohydrate. A man weighing one hundred fifty pounds in his clothes, receiving one hundred fifty grams fat, and seventy-five grams each of protein and carbohydrate per day (about 28 calories per net kilo).

On this ration most patients lose weight, while the moderate case may desugarize. If sugar persists three or four days, and if the patient be anxious to economize insulin, both protein and carbohydrate are cut to one-third gram per pound: about so low a diet as most of us will submit to. (Children require more protein).

Persistence of sugar for another two or three days invites the use of insulin.

INSULIN THERAPY

Keeping the diet exact, the adult may be started on six units of insulin, once a day, before breakfast, increasing two units per day until, as suggested by Wilder, both the morning and evening urines are barely sugar-free, and on the least possible insulin to accomplish this. The technic of injection; symptoms and treatment of reactions are well covered in the maker's instructions. Insulin has been well called the "safest of potent drugs."

When sugar-free, any undesirable loss in weight can likely be corrected by increasing the fat ration alone; in the form of butter or nut margerine on washed-bran bread (our patients demand bread of some kind) cream, whipped cream, mayonnaise and nuts, except peanut and chestnut. Joslin himself says the liability of acidosis in a sugar-free patient is less than one to a thousand.

Bulk, for a comfortable sense of fullness, is supplied by plenty of three and five per cent vegetables, low calory breads and agar jellies.

EDUCATING THE PATIENT

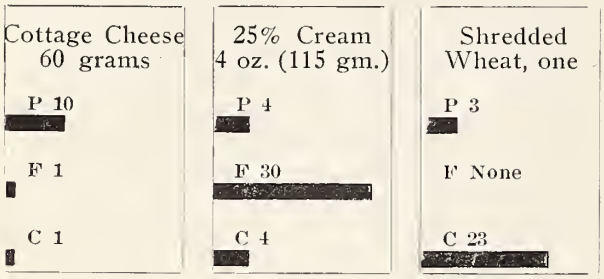
This is ordinarily more difficult than prescribing the diet. The very words are strange and distracting to the bewildered patient. The fewer such words, the better. By the use of graphic methods, even an ignorant person may be trained to successful co-operation without so much as hearing the word "carbohydrate."

The patient is assured that all foods are but

*Read at the Post-Graduate Conference, Petoskey, June 25, 1925.

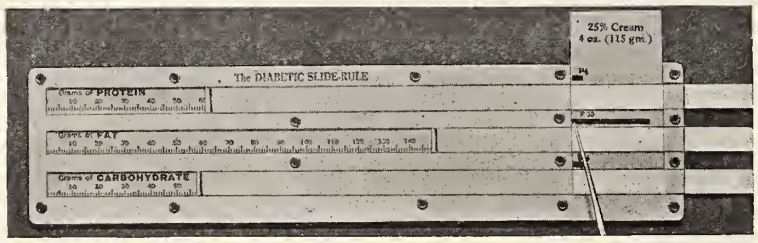
flavored mixtures, in varying proportions, of the same three food elements. He is to eat just so much per day of each of the three, no matter what foods he prefers to get them from.

He is shown cards, each representing a weighed serving of food.



The contained amounts of said three elements in such servings, being graphically pictured by the respective lengths of three dashes on the cards: dashes being marked "P", "F" and "C". Figures alongside denote the grams of each element per serving. (A convenient scale is one millimeter to a gram). The difference in the composition of foods is perceived at once, with little oratorical effort on the instructor's part.

Having been assigned so many grams each of P, F and C, friend patient finds it interesting and not difficult, to pick out a "hand" of cards, the three sets of figures on which will add up approximately to his assigned totals. Such group of cards will represent his prescribed diet for one day.



The idea is made still more obvious and tangible by use of a little calculator which mechanically adds the lengths of the three sets of dashes on the cards, till the (marked) prescription figures are reached. The cumulative totals, continually visible, give constant guidance in completing the menu. So simple is this modilcation that my four-year-old son, innocent of reading ,writing or arithmetic, can thereby readily select rations containing any assigned grams of protein, fat, and carbohydrate.

It is hard for anyone to stay on a diet. But it is less irksome when the patient himself, or one knowing his tastes, can select the menu. There is also convenience in being able to do it from foods that can be had.

ECONOMY

"Diabetes is an expensive disease." Food scales cost ten dollars: prohibitive to many. For those willing to weigh food on wax paper, etc., instead of heavy dishes, a metric diet scales can be had in Chicago for $3.75.* Three of my impecunious patients get on accurately, though awkwardly, with little seventy-five cent photo scales, remodeled into metric by use of nickles as five-gram test-weights. One frugal old lady got on for months with a home-made Joly balance, assembled in a few minutes from the spring of a superannuated shade roller, a five-cent curtain rod, and a pie tin. Its "adjustable dial," (sliding strip of wood) likewise graduated by use of nickels.

The conventional Benedict test uses five c.c. of the rather expensive solution, with six drops of urine. It is just as satisfactory, and distinctly economical, to use little ½x4-inch test tubes, whereon a file mark at 1.6 c.c. indicates the amount of reagent for two drops of urine.

Few, if any, clinics teach the use of fancy-priced low-calory flours, yet most of our patients threaten strike unless given bread, and for those who disdain washed-bran breads, the no-calory flours, expensive as they are, figure out cheaper than insulin to cover common bread. A good no-calory flour can now be had for 75 cents a pound*, but a diabetic co-operative store could sell it for less.

SYRINGES

Dangerous confusion may arise from the presence of irrevelant figures on the insulin syringe. At my request the Eli Lilly Co. have had special syringes made, graduated in units of U 20 only, other in U 40, which strength is increasing in favor, for adults.

The long, tuberculin type of syringe gives needlessly high accuracy, higher than attainable in the diet equivalent, owing to variation in food samples. The common Luer shape is more convenient for the patient to use on himself, and even with U 40, insulin accuracy exceeds that of the diet.

LABORATORY

Some doctors are avoiding modern treatment, owing to the supposed amount of laboratory procedures required. Yet Marsh and Newberg pay scant attention to blood sugar, and even glucose tolerance need not be determined as such, but may be tentatively arrived at in terms of diet and insulin. Good work can be

*Efficiency Products Co., Somerville, N. J.

done, using no tests other than Benedict's for sugar and ferric chlorid for acidosis.

It is not difficult to drop a little iron chlorid solution into some urine, and see if a purple is produced and which cannot be reproduced with a boiled sample of urine.

This means acidosis, and acidosis means insulin immediately, say twenty units every two hours, with enough carbohydrate to *keep sugar in the urine* till the acidosis is gone: probably one gram of carbohydrate per unit of insulin, preferably as a glass of orange juice for each twenty units.

SUMMARY

The diabetic with symptoms can do well only when sugar-free.

Where qualitative diet fails to accomplish this, the measured diet is in order.

Except in complicated cases, insulin is justified only when this measured diet fails to desugarize. It may be used only with such diet.

Indolent use of insulin, without desugarizing, gives apparent improvement, ending unhappily.

Intricate computations of diet are superfluous in the presence of such unknowns as the effect of work and the utilization of insulin.

Any adult without acidosis may safely be started on a daily ration of one gram of fat per pound, with half as much each of protein and carbohydrate. (About 28 calories per net kg.)

The patient may, by graphic methods, be quickly educated to select his own measured diet to suit his taste.

Insulin syringes are safer graduated in one unitage only.

Diabetes can be satisfactorily handled, using no laboratory tests except Benedict's and ferric chlorid.

The remedy for acidosis is the burning of sugar in the body by immediate and ample insulin.

PRIMARY LIVER ABSCESS WITH CONGENITAL ABSENCE OF THE GALL-BLADDER AND DIABETES

FREDERICK C. WARNSHUIS, M.D.,F.A.C.S.

GRAND RAPIDS, MICHIGAN

CLINICAL CASE REPORT

The features encountered in the following case were:

F. C., male, age 37; married; salesman.

Family History—Both parents dead; cause unknown. No brothers or sisters.

Past Health—Had good health as child and young man. Influenza in 1921. Frontal sinusitis in 1922. No evidence of venereal infections. Known diabetic for two years, but has not observed any special diet. For past six months has experienced some indefinite digestive discomfort and tendency toward constipation. States that for the past few weeks he has not felt as well as usual, but continued his daily work.

Present Illness—February 7, 1925, felt nauseated to his stomach in the afternoon and was unable to eat any dinner that evening. Complained of general epigastric pain on retiring. Was awakened at midnight by increase of this pain which radiated to the right scapular region. Was nauseated, but could not vomit. I saw him at 1 a. m., February 8th. Man appeared in considerable distress. Pulse 76. Temperature 98.8. Chest negative. Abdominal muscles soft, no distention. Considerable tenderness over region of gall bladder. Other clinical symptoms negative. A copious drink of soda and water produced vomiting of a light brown fluid void of food particles. Experienced immediate reilef; fell asleep without any further medication. Was awakened at 3 a. m. by same pain; took more soda and water and an enema and while he vomited freely and bowels responded to enema he was not relieved of his pain ,which now was refered by its intensity to the right shoulder and arm and with breathing distress. I saw him again at 7:30 a. m. Man was in very apparent distress, unable to lie down and perspiring. Temperature 98.8, pulse 82. Increased tenderness over liver area with slight perceptible muscular rigidity, though abdomen was soft with no muscle tenderness. In spite of absence of definite symptoms and under the impression that we were dealing with an acute cholecystitis he was given a quarter of a grain of morphine. Temporary relief was secured. In a few hours he was again suffering intensely and complaining of the pain in the right arm and shoulder and difficulty in breathing. Was seen again at 3 p. m. Chest negative, though there was restricted right side breath sounds. Temperature 99.8, pulse 94. There was evidence of beginning epigastric distention and right side muscular rigidity. Patient removed to Butterworth Hospital, where the following detailed findings were recorded at 6 p. m., February 8th.

Physical Examination—Temperature 101. Pulse 94. Respirations 44.

Head—No discharge from nose or ears. Acetone odor to breath. Tongue coated. Teeth in good condition. Pharynx not injected, tonsils negative.

Chest—Breathing with suppressed expansion and rapid respiratory rate. No rales. Apparent increased dullness on right side, lower area, extending to back but on forced deep inhalation normal breath sounds detected.

Abdomen—A moderate generalized distention with appreciable rigidity. No palpable masses. Some moderate tenderness over the appendix. Extremely tender and rigid over gall-bladder. Increased liver dullness. Has vomited five or six times and belches gas freely.

Heart—No evidence of cardio-pathology.

Skin—Moist, no dermatosis, color flushed.

Neuro-Muscular—Reflexes normal. Complains of intense pain in right shoulder and arm, but fails to elicit any local cause.

General—Man appears acutely ill and in intense distress, asking for relief of his pain.

LABORATORY EXAMINATIONS

Blood— Hg. 90.
Whites, 17,200.
Polynuclears, 87.5%.
Lymphocytes, 12%.
Transitional, 00.5%.
200 cells counted.

Blood Sugar—290 mgs. per 100 cc.

Urine— Reaction .....Acid.
Sp. Gravity 1.035
Albumen .....Faint Trace
Sugar 4%
Indican 0
Acetone 4%

Diacetic Acid 3%

Microscopic
No blood or casts.

Tentative Diagnosis—(a) Acute cholecystitis; (b) Possible acute appendicitis; (c) Possible acute pancreatitis.

Gastric and duodenal ulcer performation were excluded because of lack of definite history of ulcer and while the man was suffering acute pain it was not of the type and intensity encountered in ulcer perforations.

Consultation—Dr. B. R. Corbus saw the patient in consultation at 7:30 p. m., twenty-four hours after the onset of first evidence of discomfort, and recorded the following notes:

"Past history of indefinite digestive disturbance. Diabetes known for past two years. Has been quite well until last evening. Present severe attack commenced at 9:00 p. m., February 7th. Morphine required at 8:00 a. m. today. Man complains of pain in right hypochondrium and epigastrium transmitted to the right shoulder and arm. Lower abdomen distended and moderate muscular rigidity. Tenderness and aggravation of the pain on pressure over liver with high upper liver borders. Chest and heart negative. Definite diagnosis not justified by findings. Probable: (a) Acute suppurative cholecystitis; (b) High lying suppurative appendicitis; (c) Possible perforated duodenal ulcer. Emergency operation advised for drainage of pus.
—B. R. C."

Operation—Patient was given 40 grms. of glucose and 30 units of insulin in 500 ccs. of saline intravenously and sent to operating room at 8:00 p. m. February 8th. Ether anesthesia. Pulse 90 at close 114. Total anesthesia time 55 min. Duration of operation 35 minutes.

Right rectus incision. On opening peritoneum, serous fluid escaped. Exploring hand delivered normal, small appendix. On exploring upper right quadrant withdrawal of hand was followed by copious escape of serum and pus. Bowels and omentum packed off and stomach and duodenum exposed, but no ulcer or perforation found. More pus was noted escaping from liver region. Unable to palpate gall-bladder. Incision enlarged and liver well exposed by retractors.

No evidence of gall-bladder could be found. High up along the fissure of the gall bladder and at the normal site of the junction of the heptic and common duct, there was noted a white liver area, perforated, and from which pus could be freely expressed by pressure. This pressure enlarged the opening which was followed by an evacuation of several ounces of pus. The liver dome and diaphragmatic area was exposed and found free. Two cigarette drains of large size were inserted and incision closed up to drains.

Post-Operative Diagnosis—Primary Liver abscess. (Note: No pancreatic involvement detected.)

Immediate Post-Operative Condition — No shock. Color and skin good. On return to bed was given, in one hour, 30 units of insulin and 40 grms. of glucose in 500 ccs. of saline.

Post-Operative History and Progress—Dr. Corbus assumed charge of the treatment of the diabetic condition, insulin dosage and diet during the entire period of hospital residence.

February 9th—Reacted well from anesthetic. No nausea or vomiting. Able to take liquids within six hours. Pulse 104, temperature 100.6, respiration 22. Bowels splinted with morphine. Entirely relieved of shoulder pain and breathes comfortably. Dressings saturated with purulent discharge and changed q. eight hours. Lower abdomen soft.

February 14th—General condition good. Patient relishes all food. Bowels were kept splinted for five days wtih morphia. There is a free, purulent, brownish tinged discharge from drainage opening. Bowels respond to enema today. Pulse 106. See laboratory reports for blood and urine sugar.

February 18th—Progress stationary though condition good. There is a large amount of brownish purulent discharge requiring the change of dressings every eight hours. Bowels respond to enemas; abdomen soft. Appetite good. Free from pain and rests well.

February 20th—Lower part of incision infected from purulent discharge and is drained with small rubber wick.

February 25th—During the past three days there has been a change in character of the drainage, which is now not so purulent, but very offensive. One cigarette drain removed. Lower wound is infected down to fascia. Abdomen soft. General condition good. Free from pain.

February 28th—Drainage not so offensive. Second cigarette removed. Replaced with strip of rubber dam. Lower wound discharging pus freely. Sits up in bed with back rest.

March 2nd—Very little drainage from abscess region. All drains removed. Considerable drainage from lower angle of the wound.

March 3rd—Has developed a typical phlebitis of the left leg with characteristic tenderness along the femoral vein from Pouparts ligament to below the knee. Leg elevated and bandaged. See Graphic Chart for pulse and temperature record. Abdomen soft. No indurated areas. Lower incision still draining freely.

March 6th—Supra-pubic abscess, located between peritoneum and muscle walls, but which gave no outward evidence of induration or swelling, was opened under local anesthetic and about eight ounces of pus evacuated with sub-recti slough. Sugar tolerance has rapidly increased. See laboratory reports of blood sugar and urine and also of infecting organism of evacuated pus.

March 8th—Operation incision practically clean; very little drainage. Small amount of sero-pus from supra-pubic incision. Acute phlebitis has subsided, leg not painful. General condition markedly improved during the past three days.

March 11th—No drainage from any of the wounds. Leg not swollen or tender. Abdomen soft. Appetite has been good. Bowels respond to salines. There is no evidence of any abdominal tenderness or induration. During night patient

was restless and temperature rose to 102. Dropped within twenty-four hours.

March 17th—Urine is sugar free. Wounds are practically closed. Abdomen soft. Appetite good and bowels respond to cathartics. Has been up in chair for short intervals.

March 20th—Temperature 101, pulse 110. On the 23rd temperature rose to 102. No complaints, looks good and does not have septic appearance.

March 25th—Complains of pain in right side on breathing. Temperature 102.4. Can detect no evidence of pneumonia or pleurisy.

March 29th—Has been coughing for past three days. Temperature 103.2. Physical findings are negative. Commenced raising purulent sputum. See Lab. Report. X-ray revealed a right lower lobe consolidation and hilusinfection, though clinical signs of pneumonia are absent. Evidently a centralized affair which accounts for temperature elevation of the past several days as also cough and expectoration.

April 2nd—Has been more comfortable the past two days with lowering temperature. Cough and expectoration less with breathing less labored and with greater expansion. Pneumonia is evidently subsiding by lysis. All wounds healed. Abdomen soft. Takes nourishment well without digestive distress.

April 3rd—Temperature is normal for the first time during hospital residence. Feels good, is brighter. Rests well. Expectoration decreased markedly. Cough absent.

April 4th—Temperature normal. Feels good. Is very hungry. Very noticeable improvement in appearance. Sitting up.

April 8th—Is dismissed from hospital following a week of normal temperature and having been up in wheel chair for two days.

(Note—These post-operative notes have been abbreviated so as to impart only the important post-operative features. Attached laboratory reports will reveal the sugar curve in the blood and urine with striking rises as each complication manifested itself).

April 30th—Patient has gained 18 pounds. Is up and about. Is driving his automobile. Is taking but six units of insulin in the morning. He is consuming 2,800 food calories, of protein 65, carbohydrates 75 and fat 165. Appetite is good. No digestive distress. Has practically regained normal strength. Bowels are regular and good color.

INSULIN DOSAGE

February 9—Insulin 10 units q. 4 hours.
February 10—10 units q. 4 hours with 15 units at 10 p. m. and 4 a. m.
February 11—15 units q. 6 hours. P.40,C.50,F.50.
February 12—18 units q. 6 hours. P.40,C.40,F.60.
February 14—20 units q. 6 hours. P.45,C.35,F.55.
February 17—Total 70 units. P.45,C.45,F.110.
February 20—Total 75 units.
February 27—Total 120 units. P.40,C.50,F.140.
March 7—Total 90 units. P.45,C.70,F.175.
March 25—Total 70 units. P.60,C.65,F.155.
April 3—Total 35 units. P.60,C.70,F.165.
April 9—Total 20 units.

COMMENT

This patient evidently had a mild cholangitis during the several weeks previous to the acute symptoms which explains his so-called digestive distress and lassitude. I am unable to explain the reason for the sudden, acute onset and rapid development of the abscess and rupture. The condition during the first 18 hours was confusing. When the acute pain was refered to the right shoulder and arm together with increasing physical signs and laboratory findings a suppurative process in the region of the gall-bladder was apparent. Prompt operative interference was clearly indicated. The congenital absence of the gall-bladder was but a co-incidence.

The diabetic condition was a difficult one to control and had it not been for insulin a fatal termination from that complication might have confidently been expected.

Abscesses of the liver are not rare and are encountered from time to time. They are, as a rule, the result of co-existing pathology and infections.

From cases that have been reported the conclusion becomes fixed that in all acute conditions in the upper right abdominal quadrant in which an intense, acute pain is referred to the scapula, right shoulder and extending down the right arm, an acute suppurative cholangitis and liver abscess is present.

"THOSE GOOD OLD TIMES," AS SEEN BY A PHYSICIAN

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FLINT, MICHIGAN

(Continued from July issue.)

EUROPEAN LIFE TO INDUSTRIAL AGE

In art, history and poetry the lives of rulers, holy men, religious events and the nobility only are presented. The annals of the poor are not made much of and are only found in out of the way records. In the caste systems prevalent in the past, common folks were looked upon as unimportant lesser beings.

We will discuss for the most part the lives of common people, always bearing in mind the things related are told of our own ancestors, our own flesh and blood.

Originally all primitive people were wanderers and it was only with the development of agriculture and their dependence on fertile soil that they came to stay in one locality. This change from a nomadic to an agricultural people was made by different people at different times.

The Sumerians, Chinese, Egyptians and East Indians were the first large groups to settle down this way in their respective communities. This they did from 20,000 to 6,000 years ago.

The Greeks settled down in Greece about 1000 B. C. ,The Romans in about 700 B. C. The Kelts of western Europe about 400-500 B. C.

The Germanic tribes wandered for centuries over Europe to settle down at last after the time of Christ.

This they did in 100 A. D. as Gauls in northern France; in 500 A. D. as Goths in Spain, Franks in France, Anglo-Saxons and Jutes in England.

The Germanic tribes with some admixture of Celtic blood are our own people. This same process is going on among some of the African tribes today.

After this settling process, the lives of the masses of men did not change materially until the lifting of the heavy burden of hand-labor by the introduction of machines with their utilization of other sources of power.

The material conditions surrounding mankind were entirely unlike what we experience today until 150 or 200 years ago, and for the preceeding 1,500 years they had changed little.

Other things did change, such as religions, systems of government, and social organization, but food, homes, clothing, superstitions, routines of work, narrowness of horizon and those things so close to the individual were altered but little.

During this time more than nine-tenths of the people lived in the country and were devoted to agriculture. All the land was owned by lords, knights and other masters. On each little domain at some convenient place was a little settlement, and these villages were small. There were not more than 10 or 12 cities in all Europe.

Early in this period the masses of the people were slaves. These fathers and mothers of ours were bought and sold as the masters desired. They could therefore be oppressed and abused. They were chattels as were the cattle and for the most part, knowing nothing different, they acepted their lot in the same manner as did the other domestic animals. They were bound to a man and never left his estate unless they ran away or were sent to fight for him.

This slavery passed away in England about 1100 A. D. and in Germany and France a little sooner. It lingered in Ireland, Spain and the Scandanavian countries. It lasted in southern Russia until 1783.

Absolute slavery was replaced at the times mentioned by another type of organization better known to most of us as the Feudal System. The bulk of the people now lived as serfs. They were free in that they could no longer be bought and sold as chattels, but unfree because they were bound to the land now and not to a man; they belonged to an estate rather than a master.

The estate had a little more obligation to him than before. A small parcel of land was set aside which he could work himself. This right to a place to live and work could not be denied him so long as he cared for his own duties properly.

In return he had to give a share, often a large one, of what he produced, to his feudal lord. It was usual to give his best chicken and best honey. He had to work a certain number of days, varying with the season, on his lord's own farm. He had many restrictions. He could not leave the estate without consent; he could not marry without consent and even the privilege of the first night with the bride belonged to the lord of the manor. He had no voice in government, he must fight as directed, he had to accept as legal such judgments as the lord handed out without the protection of a court.

Serfdom was gradually replaced by a rental system of an oppressive kind and the opportunity to own title to land slowly developed as we have it now.

Serfdom was gone in England about 1600, in France in 1789 and soon after in the most of Europe. In portions of Central Europe and in Russia it lasted until the time of our Civil War.

The living conditions during the periods of slavery and serfdom were such as would shock us now.

The houses were scattered on the estates and gathered into small villages. They were built of wattles or small poles and plastered with mud and thatched. The floors were of dirt only. Many of them had no windows. Those which did could have no glass, for it was only slowly introduced after the 17th century. During the Middle Ages they had no chimneys nor fireplaces, but used a fire in the center of the room and left a hole in the roof for the escape of smoke. Brushwood and sticks were gathered for fuel. There was usually only one room. Houses with two or three rooms were rare until the end of the Middle Ages. Often after this time the cow stable and a store room for hay and tools were added.

Human excretions were deposited at any convenient place near by. Thre was no running water in most places. Shallow community wells were used. Pools and springs were used when available. There was no hot water, no soap, no towels. They did not bathe excepting in summer and then only if near a lake, a river or the sea.

At first there were no beds, they slept on the floors around the fire. There was no cotton clothing and woolens cost time and

effort so that underclothing was not used, and coats, doublets, cloaks, etc. were worn until they could no longer be patched. They were sewed on or tied with thongs. They had no pins, no safety pins, no buttons. Buttons were only used for decorative purposes by the rich. It was centuries before some genius made button holes to go with them.

The peasants went barefooted in summer and wore wooden shoes in winter. Leather was used only by the better class. Eating was with the fingers mostly. Knives were common, but there were no forks and few spoons of wood. Pewter and porcelain tableware were comparatively late in reaching common folks.

The food was scanty in variety, and at times not much was left after the lord had taken his share. There were no salads, no turnips, no carrots, nor other roots in England until the 16th century and in other portions of Europe not much earlier. Salted and dried meats mostly were used. The bread was coarse and often heavy. Milk and milk products were used some. They had no potatoes, no corn and no tobacco. There were no spices for the poor and no sugar for anyone until after the 17th century. Honey was used when obtainable. Fermented liquids were used a great deal.

The land was allowed to lie fallow much of the time to renew its fertility, being cultivated one out of three years, later one out of two and stil later, after clover and turnips were introduced and cattle could more successfully be wintered, more stock was raised and manuring of the fields practiced so that they need not be idle so much.

Social life centered around the parish church. They had very frequent holy days and appropriate ceremonies for them. There were many traveling conjurors, acrobats and musicians. In the later years medicine shows were common.

Schooling was confined to the monks, priests and some nobles. There was no reading or writing for the peasant. His horizon of life was extremely narrow, no travel, no "news," considerable gossip, many rumors and a great deal of superstition. There was no knowledge of the natural forces so that everything was accounted for by the activities of supernatural agencies. They lived in constant fear of the damage witches, ghosts, departed shades and malicious devils might do them. Belief in the malignant power of the "evil eye" was universal among them. Possession of one's body by devils was thought to account for insanity, illness, etc.

In those days of our fathers, minds were simple and life was hard and cruel.

KINDNESS AND CRUELTY

It is a popular pastime to argue as to whether the world is getting better or not. Such arguments are based on all sorts of comparisons and varieties of standards so that they get the contestants nowhere excepting when it leads to investigating the past more deeply.

Henry Adams said that: "The twelfth century men troubled themselves about pain and death much as healthy bears did in the mountains." I assume he means pain and death in others. There is no doubt they feared death, themselves, in those days, mightily, and even though hard and stoical, they could not suffer pain indifferently. But when it came to the other fellow, it was not of much concern.

Primitive men have always lacked sympathy for suffering in others. Weakness, illness or injuries were looked upon with calloused eye and if the individual complained he lost caste. If one expresses sympathy and gives concessions because of idealism or pity in any place in Asia today, it marks one as a coward and leads to a lack of respect rather than otherwise.

We possibly cannot put ourselves in the state of mind common to the different ages of the past, but if we judge them by our own standards we gain thereby some measure of content.

The cruelty of the past is almost incomprehensible.

The chronicles of the ancient civilization of Asia Minor are filled with the most atrocious acts listed in the most matter of fact way in the peculiar boasting style of those times. The old testiment is not free from it.

What we read is no doubt often exaggerated, but such tales are too carefully written and too often told to be all fiction. They embody the standards then in vogue.

In war it has always been true that to the victor belonged the spoils and no moral qualms deterred them from inflicting the losers in every awful way they choose, whether for amusement, revenge or personal gain.

Certain practices became customary among the Assyrians, Babylonians, Chaldeans, Hittites and others of the same times.

When a city was captured all valuables

desired were carried away and the city destroyed. The leaders were flayed (skinned) alive and the hides put on the city walls. The lesser lights were disposed of by driving stakes thro' their "tummies," pinning them to the ground in conspicuous places where they suffered a lingering death. Ordinary men were just killed by the weapons nearest at hand.

The wife of the king of the fallen city was turned over to the common soldiers to rape until death relieved her. This was made a public spectacle in the city square. The other women were treated much the same with less display. The leaders always having first choice.

All men were killed excepting the men or boys wanted for slaves and women and girls kept for mistresses. There was a common knowledge that leaving such mistreated people alive might lead to an equally terrible vengeance at some future time.

Along with the customary procedures many variations were introduced—they were maimed in all sorts of ways, dissemboweling, cutting out the heart, burning with fire, pulling apart with horses, etc.

In later times the Greeks and Romans were also a hard-boiled lot. Vanquished enemies were miserably treated. The Romans particularly using humiliations of all kinds.

In Europe of the Middle Ages the cruelties of war also were more or less standard. The leaders were disposed of by ingenious tortures long after it became common to let the rest go. The sacking and destruction of villages, castles and cities continued to a late day.

Papal legatees in one of the lesser Crusades in southern France in the 13th century, seized a town and apologized to the Pope for not burning the place and massacring its people as usual. The excuse given was not on humane grounds, but they feared they could not get food from friends of those whom they defeated and who lived on the estates around.

Again de Montfort seized the castle of Bram in this region and put out the eyes of the hundred men of the garison, leaving their commander one eye by which he could lead the rest away.

He also seized the castle of Albi after a siege and celebrated with the usual wholesale hangings, beheadings and burnings. He had the woman leader of the defense, an elderly chatelaine, thrown into a well, which was then filled with stones. The great St. Dominic was present at this siege and with other clergy sang the "veni Creator" during these proceedings.

Primitive men and men of civilized countries also have been extremely cruel in their amusements. It is a well founded trait in all people. Pleasure at the discomfiture of others, at their embarrassments and at their annoying mistakes is the foundation of most of our present wit. It is the basis of the laughs Charlie Chaplin gets. This instinctive feeling at a time when there is a total lack of consideration for others, when sympathy is weakness, easily gives rise to extreme cruelties.

There was this trait of cruelties to animals and men all through most nations, excepting in a few instances where it was modified by religious training.

This reached its extreme in the Roman times.

It began early. Peoples of antiquity had no feelings condemning abortion and it was a general practice. The Greeks advocated it as a means of keeping down population. A long chain of writers represent the practice as avowed and almost universal. It was associated with licentiousness, poverty or vanity.

The killing of new born children was akin to destroying the unborn. Lecky says infanticide is one of the deepest stains of ancient civilizations.

Among nomads it was customary for the parents to decide whether they would profit best by keeping a babe or killing it, and acting accordingly.

It was practiced freely among the Greeks. It was advocated by Plato, Aristotle, Lycurgus and Solon, philosophers and lawgivers. It was directed first at destroying the diseased or unfit, but extended to the unwelcome generally.

In Rome the head of the house had the power of life and death over his children and slaves generally. But the Romans usually encouraged an increase in population, so infanticide was not so popular until the later corrupt and sensual days.

Laws were passed against it, but it was practiced with impunity and on a gigantic scale and was viewed with indifference in spite of such laws.

Instead of killing them directly, in time it became a custom to abandon them so they would die of exposure and later this was modified by exposing them where they could be found and possibly cared for by others. Finally they were brought to a

column near the Velabrum and there picked up by speculators who educated them as slaves or prostitutes and sold them. Children also were sold directly to those peculiar merchants.

Wet nurses were much used in the days of luxuriousness in Rome. They would seek pregnancy, kill the infant and nurse the children of the rich. There was little known of artificial feedings and probably no other method of raising babies was used than on mothers' milk so obtained.

In Rome also originated, back in Etruscan times, the gladitorial games so much known. They became more frequent and more general with the growth of the Empire until they were common on all public occasions, at banquets of the nobles, at funerals, at the installations of officials and as a means of advertising by tradesmen. They entered into a large part of Roman life.

Criminals were made to fight each other, prisoners of war would be saved to fight this way and men would even fight for pay. Many nobles kept a retinue of paid gladiators and rival households would contest with each other.

Both men and women attended these contests, immense amphitheatres were built in which to hold them and the remains of these today mark the centres of the ancient Empire in western Asia and Europe.

The fierce delight of the audience usually demanded the death of one, who because of inability or weakness could not fight well. A good fighter would often make such a hit that if worsted they would demand that he be spared.

Pity was so stifled by such spectators that the desired thrill lead to all kinds of atrocious variations. Lecky says:

"Besides this, the mere desire for novelty impelled the people to every excess of refinement of barbarity. The simple combat became at last insipid, and every variety of atrocity was devised to stimulate the flagging interest. At one time a bear and a bull, chained together, rolled in fierce contest along the sand; at another, criminals dressed in the skins of wild beasts, were thrown to bulls, which were maddened by red-hot irons, or by darts tipped with burning pitch. Four hundred bears were killed on a single day under Caligula; three hundred on another day under Cladius. Under Nero, four hundred tigers fought with bulls and elephants; four hundred bears and three hundred lions were slaughtered by his soldiers. In a single day, at the dedication of the Colosseum by Titus, five thousand animals perished. Under Trajan, the game continued for one hundred and thirty-three successive days. Lions, tigers, elephants, rhinoceroses, hippopotami, giraffes, bulls, stags, even crocodiles and serpents, were employed to give novelty to the spectacle. Nor was any form of human suffering wanting. The first Cordian gave twelve spectacles, in each of which from one hundred and fifty to five hundred pair of gladiators appeared. Eight hundred pair fought at the triumph of Aurelian. Ten thousand men fought during the games of Trapan. Nero illumined his gardens during the night by Christians burning in their pitchy skirts. Under Domitian, an army of feeble dwarfs was compelled to fight, and, more than once, female gladiators descended to perish in the arena. A criminal, personating a fictitious character, was nailed to a cross, and then torn by a bear. Another, representing Scaevola, was compelled to hold his hand in a real flame. A third, as Hercules, was burnt alive upon the pile. So intense was the craving for blood, that a prince was less unpopular if he neglected the distribution of corn than if he neglected the games; and Nero himself, on account of his munificence in this respect, was probably the soverign who was most beloved by the Roman multitude. Heliogabalus and Galerius are reported, when dining, to have regaled themselves with the sight of criminals torn by wild beasts. It was said of the latter that 'he never supped without human blood'."

War will always be cruel. But the cruelties of legal punishment were little better, whether meted out by the church or the secular authorities. The doings of the Spanish Inquisition are familiar to all.

Methods of determining guilt were crude and cruel. The trial by ordeal was used hundreds of years. Suspected men or women were bound and thrown into water. If they floated they were guilty and punished, if they sank they were innocent. The water was supposed by the help of supernatural agencies to reject the guilty. Or they were made to walk barefooted over red-hot stones or plough shares. If the feet were not burned they were innocent, if they burned they were guilty. The burned feet were only evidence of a friendly interest in one's welfare and not the punishment which followed.

To determine guilt, ordeals have been used very generally among primitive peo-

ple and are so used in some out of the way places now.

Trial by combat or by wager seemed to have developed more among the Germanic tribes of Europe than elsewhere.

An accused man would challenge the accuser and if he won he was innocent and freed, if defeated, he would be guilty and hung. Accusers would hire combatants to defend them which made it still more just. These spectacles were attended and enjoyed by the curious, as in old Rome.

Turner gives a good resume of the conditions of this period:

"There was much harshness and cruelty in manners and customs. Punishments were savage and dreadful. Torture was in most parts of Europe often employed. Fearful punishment was ever and again meted out to some notable offender. John of Leyden, who, with others led the religious-radical revolution at Munster (1535), was crowned with a red-hot crown after his body had everywhere been torn with red-hot pincers. When Gerard murdered William the Silent (1581), it was decreed that his right hand should be burned off with a red-hot iron, that with pincers his flesh should be torn from the bone in six places, that he should be disembowelled and quartered, his heart torn from his bosom, and his head stricken off. Damiens, who tried to assassinate Louis XV (1757), had his flesh torn open with red-hot pincers, melted lead poured into the wounds, and his body pulled asunder by horses. An Italian contemporary relates how throngs of highborn women in their carriages crowded in among the rabble to watch during the hours that the spectacle endured. For high treason in England the punishment was to be hanged, drawn, and quartered; and the ghastly proceedings, witnessed by the multitudes, have been described in detail by contemporary writers. For smuggling, and defrauding the king of his revenue the punishment in France was breaking on the wheel. The condemned was bound on a large wheel, with arms and legs out-stretched. Then all the bones were crushed at the joints by blows with a heavy hammer, and death came after an infinite delay of lingering torment. Sometimes, in addition, the broken wretch was scourged with whips of metal.

"Torture was employed not merely for punishment, but in order to exort confession. Many an old stronghold or prison of state preserves fearful engines once used for this purpose. On the rack Anne Askew's joints were so broken that she could not walk to the stake to be burned (1546). After the Gunpowder Plot in England (1605) Guy Fawkes was stretched on the rack until he confessed; and on a letter still preserved is the trembling signature to his confession. When Ravaillac, assassin of Henry IV, king of France, was put to the question to make him discover his accomplices (1610), it is said that first all his teeth were drawn and his nails pulled out, lest in extremity of torture he bite off his tongue or else tear it out, and thus avoid a confession. Torture was a spectacle to which visitors at prisons were admitted. John Evelyn, English diarist of the seventeenth century, narrates that during his travels he was allowed to see a suspect stretched and then filled with water. About the same time Racine, in his Plaideurs (1668), has one of his characters invite another to witness a torture: 'So one can always while away an hour or so.' Many an innocent one, driven by pain to confess crime which he had not committed, was sentenced to death. In the sixteenth and seventeenth centuries nearly all classes in church and state approved of this method, though some condemned it as cruel and unjust. During the eighteenth century increase of humaneness gradually brought some diminution. Toward the end of this period the writings of the Italian jurist and philanthropist, Beccaria, had much to do with causing men to desire other methods. In his book Dei Delitti e delle Peno (Crimes and Punishments) published 1764, he advocated abolition of death penalty as well as of torture. In most parts of Europe, however, torture was employed to the end of the Old Regime. England was an honorable exception. There, during the Middle Ages, torture was abandoned in the procedure of the common law courts, and it was gradually also brought to an end in the king's prerogative courts.

"Punishments were very severe. There was much crime, and a great deal of it went unpunished, since there was nowhere an adequate police, and the organization and machinery for detecting and capturing malefactors were in most places quite insufficient. When punished, criminals were usually punished with death or mutillation. There were not many prisons, since the community could not afford to support them. Used mostly for confining state offenders or debtors, they were generally horrible places, where prisoners lingered in filth, hunger and disease, supported largely

by contributions from the charitable or from friends. In Mediterranean countries, condemned malefactors were sent to the galleys; but for the most part in the case of graver crimes prisoners were sentenced to death, if they were not acquitted. For lesser crimes, lesser punishments—whipping, branding, the pillory, mutillation. Culprits were marked on the forehead or cheeks with some letter or sign imprinted with glowing iron. Some had the ears cropped. Some had nose or tongue slit. For minor offenses men or women were put in the stocks or the pillory, exposed to the gaze of the town. Sometimes an unpopular malefactor put up in the pillory was pelted to death by the mob. Titus Oates, false witness in the Popish Plot (1678), was afterward condemned to be beaten from Aldgate to Newgate and from Newgate to Tyburn—all the way across London. In Russia the son of Peter the Great is said by some to have expired under scourging with the knout (1718). In Great Britain during the eighteenth century more than a hundred crimes were punished with death, though in most cases the offender could on the first occasion escape through receiving 'benefit of clergy,' that is, the privilege which the medieval clergy had had of being punished lightly, not with death."

So much for legal punishments.

The lot of the sick, the crippled and the defectives was most unhappy also.

Not understanding disease, the treatment of it was usually as bizarre as the mystico-magical theories regarding it.

Most diseases were laid to the possessing of a devil and most efforts at treatment were directed toward ridding the patient of this evil spirit by purges, bleeding, blisters, cauterization, production of open supperating wounds by setons, the administration of nasty, vile, nauseous remedies. The treatment indeed must have been worse than the disease.

Of hospitals and places of rest for the sick there have been many. Those in Europe go back as far as the Hotel Dieu in Lyons, 543 A. D. which is still used.

In the 18th century there were many and of their quality we may judge by the historic old Hotel Dieu of Paris.

This had 1,220 "beds", with 4 to 6 patients to a bed. The beds for children held as many as 30 babies. For the worst patients straw in the halls was provided for 800. No linen, nothing like a modern hospital, dirty convalescents nursing the dirtier sick. All wounds were infected, gangrene was common and, with the nature of the care given, all was odorous and vile.

The mental defectives, whether insane or imbeciles, were treated with similar hard-boiled methods.

Of course, most of them were allowed to die, or, because of their vagaries offending some one, they were killed outright. When every man had to be ready to defend himself from violent death these folks stood no show.

"In the old days, without medical benefits and without special provisions, the hand of Nature fell heavily on the unfit. Such were numbered, as they are largely now, among the unemployables; but there were no doctors to enable them to limp through life; no charities to take their offspring or provide for their necessities. A petty theft meant the gallows, unemployment meant starvation, feeble-mindedness meant persecution and social expulsion."

If they were amusing smart-alecks they were kept around the lord's manor home for his own amusement and that of his guests. They were kidded, safely reviled, were made to contest with the dogs for scraps thrown to them from the table and, altogether, must have furnished much amusement.

The insane who were of violent habits were chained in cellars or out of the way rooms, if cared for at all, and no doubt few survived long their treatment.

Early in Spain, homes for the insane were built, but not till later did other countries take it up. The first place of refuge in Vienna was a wretched place where their victims were confined in cages and exhibited for an admittance fee.

Cripples were common, with many injuries due to disease, war, fighting wild animals and each other, many cripples were found. Dwarfs, particularly are noted from the earliest times, and these unfortunates were in demand for entertainment in proportion to their grotesque character.

They were used, like the court fools, to grace the halls of the feudal lords. Strolling musicians and vendors of all sorts of things used them as attractions. In fact, they were so useful that the supply was too limited and the Comprachicos came with their horrible practices.

"Comprachicos was the name adopted by a nomadic affiliation, famous in the seventeenth century of Europe. This band of persons made a practice of buying and selling children. These children were, by means of surgical operations, deformed and disfigured so that they assumed certain peculiarities, which provided the humor

THE SCIENTIFIC PROGRAM AT MUSKEGON WILL BE ENTIRELY CLINICAL

demanded at the time. The organization had its own laws, oaths and formulas, and was found principally in England, Spain, France and Germany. The name is a compound Spanish word meaning 'buyers of little ones.' "

It is a long way from the times I have attempted to describe, to the soft, sympathetic, effeminate age we now have, where grown men seldom settle their differences by personal combat, where by law all cruel and unusual punishments are forbidden—where every effort is made to restore the cripple, where the insane and the feeble-minded are given shelter and wonderful care by a kindly public, and where harmless prize fights and friendly football contests are rated as brutal.

"William the Conqueror, annoyed at having his bastardy continually thrown in his face by his wife, is said to have relieved his feelings by tying her hair to his horse's tail and dragging her out to a neighboring suburb."

What a change there is now in development of kindness and lessening of brutality.

(*Continued in September Issue*)

WHEN YOU WERE A TADPOLE AND I WAS A FISH

(First published under the title "Evolution," in 1895. The author, Langdon Smith, is dead.)

When you were a tadpole and I was a fish
  In the Paleozoic time,
And side by side on the ebbing tide
  We sprawled through the ooze and slime.
Or skittered with many a caudal flip,
  Through the depths of the Cambrian fen.
My heart was rife with the love of life,
  For I loved you, even then.

Mindless we lived, and mindless we loved.
  And mindless at last we died.
And deep in a rift, of the Caradoc drift
  We slumbered side by side;
The world turned on in the lathe of time,
  The hot lands heaved amain,
Till we caught our breath from the womb of death
  And crept into life again.
We were amphibians, scaled and tailed.
  And drab as a dead man's hand,
We coiled at ease 'neath the dripping trees,
  Or trailed through the mud and sand;
Croaking and blind, with our three-clawed feet,
  Writing a language dumb,
With never a spark in the empty dark
  To hint at a life to come.

Yet happy we lived, and happy we loved,
  And happy we died once more;
Our forms were rolled in the clinging mold
  Of a neocomian shore.
The eons came, and eons fled,
  And the sleep that wrapped us fast
Was riven away in a newer day
  And the night of death was past.

Then light and swift through the jungle trees
  We swung in our airy flights,
Or breathed in the balms of the fronded palms
  In the hush of the moonless night;
And oh! what beautiful years were these
  When our hearts clung each to each,
When life was filled and our senses thrilled
  In the first faint dawn of speech.

Thus life by life, and love by love,
  We passed through the cycles strange,
And breath by breath and death by death
  We followed the chain of change.
Till there came a time in the law of life
  When over the nursing sod
The shadows broke, and souls awoke
  In a strange, dim dream of God.
I was thewed like an Auroch bull
  And tusked like the great cave bear,
And you, my sweet, from head to feet,
  Were gowned in your glorious hair;
Deep in the gloom of a fireless cave,
  When the night fell o'er the plain,
And the moon hung red o'er the river bed,
  We mumbled the bones of the slain.
I flanked a flint to a cutting edge
  And shaped it with brutish craft,
I broke a shank from the woodland dank
  And fitted it, head and haft;
Then I hid me close to the reedy tarn,
  Where the mammoth came to drink—
Through brawn and bone I drove the stone
  And slew him upon the brink.

Loud I howled through the moonlit wastes
  And called on my kith and kin,
From west and east to the crimson feast
  The clan came trooping in;
O'er joint and gristle, and padded hoof,
  We fought and clawed and tore,
And cheek by jowl, with many a growl,
  We talked the marvel o'er.

I carved that fight on a reindeer bone
  With a rude and hairy hand,
I pictured his fall on the cavern wall
  That men might understand.
For we lived by blood and the right of might,
  Ere human laws were drawn,
But the age of sin did not begin
  Till the brutish tusks were gone.

That was a million years ago
  In a land that no one knows,
And now tonight in the mellow light,
  We sit at Delmonico's;
Your eyes are as deep as the Devon springs,
  Your hair as dark as jet,
Your years are few, your life is new,
  Your soul untried—and yet—

Our trail is on the Kimmeridge clay
  And the scrap of the Purbeck flags,
We have left our bones in the Bagshot stones
  And deep in the Coraline crags;
Our love is old, our lives are old,
  And death shall come amain;
Should it come today, what man may say
  We shall not live again?

God wrought our souls from the Tremadoc beds
  And furnished them wings to fly,
He sowed our spawn in the world's dim dawn,
  And I know that it shall not die.
Though cities have sprung above the graves
  Where the crook-boned men made war;
And the ox-wain creaks o'er the buried caves
  Where the mummied mammoth are.

Then as we linger at luncheon here,
  O'er many a dainty dish,
Let us drink anew to the time when you
  Were a tadpole, and I a fish.

PUBLIC HEALTH ACTIVITIES

Edited By

MICHIGAN DEPARTMENT OF HEALTH

DIARRHEA AND ENTERITIS

It is common knowledge that reportable diseases, such as pneumonia, scarlet fever and diphtheria are very frequent causes of death in early childhood, but none of these infections heads Michigan's infant mortality list. Except for conditions occurring before, or associated with delivery, diarrhea and enteritis is most often recorded as a cause of death for young children. A few of the reasons for the exceedingly high mortality from a single cause, and immediate prospects for preventing these infant deaths will be reviewed in the following discussion.

The term "diarrhea and enteritis" is vague. Deaths so classified include the mortality from a number of illnesses. The true dysenteries, said, according to Hippocrates, to be characterized by the passage of mucus and blood, are important members of the group. They may be of bacillary, or of amoebic origin. The summer diarrheas—the cholera infantum or older terminology—are classified under this group. Also deaths are ascribed to diarrhea and enteritis in which intestinal disease was not primary, but followed some other ailment. Because the term is so loosely construed, and because it is so often given as the reason for infant mortality, diarrhea and enteritis deserves analytical and laboratory study.

Recently published investigations by W. C. Davison have clarified the situation considerably. Davison maintains that diarrhea cases can be divided into two groups—the true dysenteries, and those of unknown etiology. If the specimens reached the laboratory within a short time, he was able to isolate the Flexner type of bacillus from 80 per cent of his dysentery cases. A much smaller number, 10 per cent, showed organisms of the Shiga type. These, it should be emphasized, were cases of true dysentery—bloody stools being one of their outstanding clinical features. From a large number of diarrhea cases (without bloody feces) there were no constant bacteriological or parasitic findings. Numerous workers have confirmed, or independently established Davison's findings concerning the etiology of true dysentery.

The data at hand seems to favor the opinion that simple diarrhea—including the characteristic seasonal diarrhea of August and September—is not primarily of bacterial origin. It perhaps is due to some change or combination of changes in milk or other food products, accompanied by alterations in the baby's metabolism. These changes may have some relation to carbohydrate metabolism; high protein and acid diets are clinically useful in many diarrhea cases. V. C. Vaughan has applied his split protein theory to the question and has suggested that bacterial and other proteins in mily are absorbed more readily in infants than in older children. Boyd found that extracts made from the intestines of children dying from acute intestinal disturbances were toxic for rabbits.

None of these explanations is entirely satisfactory, but in spite of the unknown etiology of many of the conditions so classified, the death rate from diarrhea and enteritis has declined. Holt states that the number of young children who died from this cause dropped during the twenty-five year period, 1896-1921, from seven thousand to less than two thousand. During the past few years the death rate in Michigan has declined in a similar manner. The following table lists the annual number of deaths from diarrhea and enteritis in Michigan in children under two years of age:

Year	Number of Deaths	Specific Death Rate Per 100,000 Population
1920	1,860	50.1
1921	1,626	42.6
1922	1,087	27.7
1923	1,380	35.8
1924	1,059	27.2

The decrease in Michigan, and in other states, is not easy to account for. It can be partially explained by increased diagnostic skill, and less frequent use of the vague term diarrhea and enteritis as a cause of death, but only a small portion of the decline can be so accounted for.

In Michigan 297, or 28 per cent of the 1924 diarrhea and enteritis deaths occurred during the months of August and September. These must have been either cases of true dysentery or of "summer diarrhea." The annually decreasing number of such deaths can be logically attributed to better environmental conditions, to a public which is better informed about infant hygiene than they formerly were, and

who have learned to seek medical advice for the baby when even trivial conditions arise. This is an optimistic, comfortable view of the situation, and perhaps it will sometime be demonstrated a satisfactory one.

It remains for the clinician, the laboratory worker and the epidemiologist to discover which of the factors concerned with better infant environment and hygiene have been responsible for the decrease. Once determined, we should be able to apply these measures for the prevention of future diarrhea and enteritis deaths. It is obvious, of course, that the cause of summer diarrhea must be determined.

For control purposes, the children under five years of age in a rapidly growing community without municipal sewage disposal are being studied by workers from the Michigan Department of Health. The survey will include a very complete review of economic and environmental conditions under which several hundred young children are living. Specimens of feces from each child will be examined bacteriologically, and for ova and parasites. Clinical histories will be taken, and physical examinations performed. The data from this survey will be used as control material when subsequent cases, or outbreaks of diarrhea and enteritis are investigated.

Diarrhea and enteritis cases are not reportable. With laboratory and clinical facilities available for study, we request that physicians report all such cases by telephone or telegraph. It is especially urged that outbreaks of diarrhea be reported immediately. The results from such a study by the medical profession, and by the State Department of Health of Michigan, may well be of unusual scientific importance. A single cause of death, whose etiology is not entirely settled, which kills over a thousand Michigan children annually, deserves a cooperative investigation.—G. H. R.

MOSQUITO

For years we have had our "swat the fly" crusades, and it is right that we should, but why not go farther and add, this year, a crusade against the mosquito?

The mosquito has proved herself to be a 100 per cent nuisance, responsible for depreciation of real estate, and in some states an actual health menace; in short, a liability wherever she appears. Although the mosquito is not a health menace in Michigan, yet the other indictments are sufficient to warrant capital punishment.

Since the mosquito's hiding places, the time of incubation, and habits are known, together with the means of extermination, nothing remains, therefore, to relieve ourselves of this summer's nuisance, but an application of the remedial measures.

Many believe that mosquito elimination and control is expensive and of short-lived benefit. This opinion is erroneous. Efficient mosquito control can be maintained at a very low cost, but a dogged determination to fight to the "last ditch" and cold weather, is the essential requirement. One man, or possibly two, with pick and shovel and plenty of oil, either crude oil thinned with kerosene, or crank case oil collected from garages, can work wonders in any community.

Complete elimination of all places where water can stand for ten days or more, marks the first step in the destruction of the mosquito. This requires careful inspection of yards and houses. Buckets, barrels, tin cans, boxes, and similar receptacles should be emptied of water and placed so that none will be collected in succeeding rains. Eaves troughs and downspouts should be cleaned so that water will drain away rapidly. Depressions should be filled and all pooling of water prevented. In streams and ditches obstructions should be removed so that the water will drain away rapidly and completely. Where draining cannot be accomplished, oil should be applied so that a film of oil is maintained over the surface at all times.

If these remedies are completely and consistently applied throughout the summer, mosquitoless comfort will be enjoyed. The remedies are inexpensive, but, as in the fly crusade, the application must be continuous. The rules to follow are: "Repeat the doses every ten days to two weeks," and "Drain when you can, oil when you must."—J. M. H.

SCHOOL NURSING

The law passed by the recent legislature authorizing county boards of supervisors to appropriate sums of money for the salaries and expenses of public health nurses, carries with it a standard for the preparation of such nurses —"a course of training of at least four months in public health nursing given under a recognized school, college, or university, or at least eight months' experience in public health nursing work under supervision of an organized staff."

The accepted standard for recognized schools, colleges and universities in the United States today is that of the National Organization for Public Health Nursing.

As a result of this law, a conference was held under the auspices of the Michigan Department of Health, at which representatives from the National Organization for Public Health Nursing, the American Red Cross, and Michigan nurses who are interested in the educational work for nurses in Michigan, met with

Mrs. Helen deSpelder Moore, assistant director of the Bureau of Child Hygiene and Public Health Nursing of the Michigan Department of Health, for the purpose of discussing the practical requirements to be expected of schools and nursing organizations.

It was suggested by this conference group that Michigan accept, as qualified for giving courses in public health nursing, all schools which have been inspected by the National Organization for Public Health Nursing, supplemented by certain additional schools not on this list, provided the nurses from such schools should have had subsequent satisfactory experience under supervision for even a shorter period than the full eight months.

An organization considered able to give valuable practical experience to a nurse was defined as one possessing the following requirements:

(a) A sound organization with a program of work.

(b) A qualified nurse director and supervisor in charge, with other qualified nurses on the staff.

(c) General nursing experience preferred, under daily systematic educative supervision of a nurse in her work.

(d) A definite program of instruction covering the primary principles of her work.

Dr. Lillian R. Smith has been appointed director of the Bureau of Child Hygiene and Public Health Nursing, to take the place of Dr. Blanche Haines, whose resignation became effective July 1st.

Dr. Smith has been with the Department for a little more than a year, acting as prenatal consultant in the prenatal clinics. She has also examined in the infant and pre-school children's clinics, working largely in the rural sections of the state. Dr. Smith was born in Muskegon, and is a graduate of Tufts College Medical School, with experience both in hospitals and in private practice.

According to Dr. Haven Emerson, who was health commissioner of New York City during the 1916 epidemic, prompt hospitalization of poliomyelitis cases was an exceedingly valuable control measure. The cause of poliomyelitis, and its means of transmission are unsolved mysteries. The evidence at hand favors direct transmission by means of respiratory tract secretions. At any rate, early diagnosis and isolation of the patient do appear to have some influence on the spread of the disease. As far as the patient is concerned, his chances for recovery without residual paralysis are known to be better with skilled medical and nursing care than they are with home treatment. Where hospital facilities are not available, the physician will profit by insisting that a graduate nurse be secured for poliomyelitis cases.

The early diagnosis of pulmonary tuberculosis is commonly regarded as the prerogative of the specialist in pulmonary diseases. To exactly point out the lesion is a difficult matter, but the specialist has no other advantage over the careful general practitioner. Fatigue, loss of weight, and a daily afternoon temperature are cardinal symptoms of incipient tuberculosis. The physician's task is to prove by the most thorough of thorough physical and laboratory examinations that these symptoms are not due to any other cause. The diagnosis of the tuberculosis specialist is sometimes dependent upon such a process of elimination. If the patient is expectorating, his sputum can be examined daily. The series of examinations should be long. In dealing with chronic lung conditions, diseases other than pulmonary tuberculosis should not be considered until at least ten negative sputum examinations have been obtained.

Six students from the University of Michigan and the Michigan State College have registered for the summer courses in laboratory technic.

Public Health Laboratory Methods.*

Instruction in Public Health Laboratory Methods will be given in the laboratories of the Michigan Department of Public Health, Dr. R. M. Olin, Commissioner, at Lansing, Michigan. The following courses will be conducted by Dr. C. C. Young and associates.

Course I. This course will be a general resume of methods used in a public health laboratory with especial emphasis on the more recent applications of the biological sciences to diagnostic laboratory procedure. For physicians, health officers, laboratorians, and others properly qualified.

Prerequisite: Bacteriology, General Chemistry, and Physiological Chemistry.

Three weeks, seven hours a day.

Course II. Public Health Microbiology. Will include diagnostic bacteriology, sanitary bacteriology, intestinal parasites, malarial parasites, darkfield examinations, urine examinations, et cetera.

Prerequisite: Bacteriology and General Chemistry.

Six weeks, seven hours a day.

Course III. Serum Diagnosis in Syphilis. Will include the study of complement fixation,

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*Announcement in the University of Michigan Summer Session Catalog for 1925.

NATIONALLY KNOWN SPEAKERS ON ANNUAL PROGRAM AT MUSKEGON

the Wassermann test, and the Kahn precipitation test.

Prerequisite: Bacteriology and General Chemistry.

Six weeks, seven hours a day.

These courses can be modified to meet the needs of individuals. It is practically impossible to work out a set procedure until the qualifications of those persons applying for the courses are known.

MONTHLY REPORT

The communicable disease reports for the month of June show no very striking things except in whooping cough, of which there were 909 cases reported as compared with 388 for the corresponding months in 1924, and 759 for May of this year.

Scarlet fever continues high, being considerably above the average for the past 5 years and about 10 per cent higher than the corresponding month of 1924, but is below the month of May this year. We should, however, expect a seasonal decrease in this disease.

Measles, while exceedingly high, shows not much change over last year and the preceding month.

Possibly the most satisfactory item is that of diphtheria, which shows about 20 per cent decrease from the corresponding month of last year, but is slightly higher than in May, although we would naturally expect it to be lower, as the disease shows a marked decrease during the summer.

There is a marked increase in the number of cases of pneumonia reported for the corresponding month of last year, but this is very hard to interpret, as we know that our reports cover by no means all of the cases of pneumonia which occur.

In reviewing the first half of the year, it is interesting to note a decrease of 9,870 in the number of cases of communicable diseases reported. For the six months of this year, there were reported 41,991 cases of communicable disease as compared with 51,861 over the corresponding six months of 1924. Increases are found in pneumonia, 224 cases; tuberculosis, 345 cases; whooping cough, 1,719 cases; poliomyelitis, 18 cases; syphilis, 1,160 cases, and gonorrhea, 68 cases; and decreases are found in typhoid fever, 29 cases; diphtheria, 1,633 cases; scarlet fever, 134 cases; measles, 8,134 cases; smallpox, 3,409 cases; meningitis, 16 cases, and chancroid, 49 cases. These decreases, while of interest, must be viewed, however, with a great deal of caution. Many diseases have a marked periodicity and in comparing year with year it is very easy to be misled by such a finding. For instance, measles was exceedingly high in 1923, which epidemic extended well over into 1924, and much of the decrease in the comparison of 1925 with 1924 is found in this one disease. There is probably no other one disease which shows such marked and regular periodicity as measles.

PREVALENCE OF DISEASES

JUNE REPORT

Cases Reported

	May 1925	June 1925	June 1924	Average for 5 yrs
Pneumonia	528	503	337	343
Tuberculosis	524	592	508	473
Typhoid Fever	33	31	44	66
Diphtheria	239	297	369	515
Whooping Cough	759	909	388	627
Scarlet Fever	1,320	1,002	917	691
Measles	2,331	2,365	2,420	3,318
Smallpox	86	117	699	329
Meningitis	11	10	13	15
Poliomyelitis	6	6	2	3
Syphilis	1,180	1,332	1,033	842
Gonorrhea	884	897	858	936
Chancroid	2	13	17	20

CONDENSED MONTHLY REPORT

Lansing Laboratory, Michigan Department of Health,

JUNE, 1925

	+	—	+—	Total
Throat Swabs for Diphtheria				1260
Diagnosis	52	348		
Release	135	203		
Carrier	9	493		
Virulence Tests	12	8		
Throat Swabs for Hemolytic Streptococci				1278
Diagnosis	270	127		
Carrier	37	446		
Throat Swabs for Vincent's	19	379		
Syphilis				11247
Wassermann	1003	4625	65	
Kahn	1137	4350	65	
Darkfield		2		
Examination for Gonococci	170	1031		1201
B. Tuberculosis				
Sputum	77	363		464
Animal Inoculation	3	21		
Typhoid				145
Feces	3	38		
Blood Cultures		18		
Urine		2		
Widal	1	42		
Dysentery		41		
Intestinal Parasites				30
Transudates and Exudates				332
Blood Examinations (not classified)				232
Urine Examinations (not classified)				322
Water and Sewage Examinations				445
Milk Examinations				84
Toxicological Examinations				7
Autogenous Vaccines				4
Supplementary Examinations				296
Unclassified Examinations (including Dick test surveys)				421
Fairmont Hosp. Kalamazoo				610
Total for the Month				18398
Cumulative Total (Fiscal year)				252611
Increase over this Month last year				3238
Outfits mailed out				10676
Media Manufactured, c.c.				411080
Diphtheria Antitoxin distributed, units				24431000
Toxin Antitoxin distributed, c.c.				16040
Typhoid Vaccine distributed, c.c.				1078
Silver Nitrate Ampules distributed				5588
Examinations made by Houghton Laboratory				1401

The Official Program of the 105th (60) Annual Meeting of the Michigan State Medical Society, Muskegon, Michigan, September 8-9-10th, 1925

OFFICIAL CALL

The Michigan State Medical Society will convene in Annual Session in Muskegon on September 8, 9 and 10, 1925. The activities will be conducted in accordance with the following program:

C. C. Clancy, *President.*
J. B. Jackson, *Chairman of the Council.*
J. E. King, *Speaker.*

Attest: F. C. Warnshuis, *Secretary.*

COUNCIL

The Council will convene:

September 8th—11:00 a. m.
September 8th— 5:00 p. m.
September 9th—12:00 m.
September 10th—12:00 m.

GENERAL SESSION

Wednesday Evening, September 9th, 1925.

Time, 7:45. P. M. *Place, Theatre.*

1. Call to Order.
2. Invocation—Rev. ....
3. Address of Welcome—R. J. Busard, M. D., President Muskegon County Medical Society, Muskegon, Mich.
4. Announcements—The Secretary.
5. President's Annual Address. C. C. Clancy, M. D., Port Huron, Mich.
6. Address: (Invited Guest, to be announced in September issue.)
7. Resolutions.

SECOND GENERAL SESSION

September 10th, 12 M.

PLACE: Armory.

1. Announcements—The Secretary.
2. Result of Ballot for President.
3. Introduction of President.
4. Adjournment.

HOUSE OF DELEGATES

J. E. King, Detroit, *Speaker.*
W. J. O'Reilly, Saginaw, *Vice-Speaker.*
F. C. Warnshuis, Grand Rapids, *Secretary.*

SESSIONS

September 8th—2:00 p. m.
September 8th—7:00 p. m.
September 9th—4:00 p. m.
Sepetmber 10th—8:00 a. m.

ORDER OF BUSINESS

FIRST SESSION

September 8th, 2 P. M.

PLACE—Occidental Hotel.

1. Call to Order.
2. Report of Credential Committee.
3. Roll Call.
4. Speaker's Address—J. E. King, Detroit.
5. President's Address—C. C. Clancy, Port Huron.
6. Report of Council—J. B. Jackson, Kalamazoo.
7. Election of Nominating Committee.
8. Appointment of Reference Committees.
9. Report of Standing Committees.
   (a) Civic and Industrial Relations.
   (b) Legislative.
   (c) Venereal Disease Prevention.
   (d) Public Health Education.
   (e) Delegates to the A. M. A.
   (f) Tuberculosis.
   (g) Medical Education.
10. Resolutions and New Business.

SECOND SESSION

September 8th, 7 P. M.

1. Call to Order.
2. Roll Call.
3. Reports of Reference Committees.
4. Unfinished Business.
5. New Business.
6. Adjournment.

THIRD SESSION

September 9th, 4 P. M.

1. Call to Order.
2. Roll Call.
3. Reports of Committees.
4. Report of Nominating Committee.
5. Election:
   (a) Vice-Presidents—(Four).
   (b) Councillors.
      1st Dist. F. B. Walker, Term Expires.
      2nd Dist. B. F. Green, Term Expires.
      3rd Dist. R. C. Stone, Term Expires.
   (c) The Delegates and Alternates A. M. A.
   (d) Place of Next Annual Meeting.
   (e) Adjournment.

(Note:—Unless there is Unfinished Business there will be no Fourth Session.

Notes—1. Nominating Committee Nominates:
   (a) Four Vice-Presidents.
   (b) Two Delegates and Alternates to the A. M. A.
   (c) Place of Next Annual Meeting.
2. Councillors are nominated by the Delegates of each Councillor District and are called in Caucus by the Secretary.

THE SCIENTIFIC PROGRAM AT MUSKEGON WILL BE ENTIRELY CLINICAL

DELEGATES AND ALTERNATE DELEGATES HOUSE OF DELEGATES

NOTE:—Delegates in Boldface type.
Alternates in Lightface type.

ALPENA COUNTY

C. M. Williams
John Jackson
S. T. Bell

ANTRIM-CHARLEVOIX-EMMETT-CHEBOYGAN

Buell H. Van Leuven
Frederick C. Mayne

BARRY COUNTY

E. T. Morris
C. K. Brown

BAY-ARENAC-IOSCO

C. H. Baker
C. A. Stewart
M. R. Slattery
D. T. Smith

BENZIE COUNTY

BERRIEN COUNTY

Robert Henderson
R. H. Snowden

BRANCH COUNTY

CALHOUN COUNTY

C. S. Gorsline
Geo. A. Hafford
Wilfred Haughey
S. K. Church

CASS COUNTY

CHIPPEWA-LUCE-MACKINAC

E. H. Webster
Geo. H. Dickison

CLINTTON COUNTY

W. A. Scott

DELTA COUNTY

J. O. Gross
A. J. Carlton

DICKINSON-IRON

EATON COUNTY

Dr. Rickerd
Dr. Quick

GENESEE COUNTY

H. Stewart
H. Cook
C. Moll
M. S. Knapp
J. G. R. Manwaring
J. Benson

GOGEBIC COUNTY

W. E. Tew
D. C. Pierpont

GRAND TRAVERSE-LEELANAU

George A. Holliday

HILLSDALE COUNTY

HOUGHTON-BARAGA-KEEWENAW

C. E. Rowe
J. B. Quick

HURON COUNTY

INGHAM COUNNY

B. M. Davey
L. W. Toles
Samuel Osborn
O. N. Bruegl

IONIA-MONTCALM

C. H. Peabody
Perry C. Robertson

GRATIOT-ISABELLA-CLARE

Dr. Graham
Chas. D. Pullen

JACKSON COUNTY

KALAMAZOO COUNTY

L. J. Crum
W. Den Bleyker
B. A. Shepard
W. E. Collins
D. E. Squires
F. C. Penoyer

KENT COUNTY

A. V. Wenger
J. D. Brook
E. W. Schnoor
R. F. Webb
J. W. Rigterink
A. M. Martin
W. E. Wilson
H. J. Pyle

LAPEER COUNTY

Philip E. Martin
Daniel J. O'Brien

LENAWEE COUNTY

L. J. Stafford
A. W. Chase

MACOMB COUNTY

MANISTEE COUNNTY

H. D. Robinson

MARQUETTE-ALGER

A. W. Hornbogen
L. W. Howe

MASON COUNTY

MECOSTA COUNTNY

L. E. Kelsey
John L. Burkhart

MENOMINEE COUNTY

MIDLAND COUNTY

G. E. Orth
.C V. High, Sr.

MONROE COUNTY

MUSKEGON COUNTY

F. W. Garber
S. A. Jackson

NEWAYGO COUNTY

A. C. Thompsett
W. H. Barnum

OAKLAND COUNTY

F. B. Gerls
F. A. Mercer

ALL THE SESSIONS WILL BE HELD IN ONE MAIN AUDITORIUM

OCEANA COUNTY

W. L. Griffin
O. G. Wood

OTSEGO-MONTMORENCY-CRAWFORD
OSCODA-ROSCOMMON-OGEMAW

ONTONAGON COUNTY

E. J. Evans
F. W. McHugh
W. B. Hanna
J. S. Netterauer

OSCEOLA-LAKE

OTTAWA COUNTY

W. G. Winter
W. C. Kools

PRESQUE ISLE

SAGINAW

Nelson F. McClinton
D. E. Bagshaw

SANILAC COUNTY

John Campbell
G. G. S. Tweedie

SCHOOLCRAFT COUNTY

None

SHIAWASSEE COUNTY

J. J. Blue
A. L. Arnold, Jr.

ST. CLAIR COUNTY

A. J. McKenzie
— Collery

ST. JOSEPH COUNTY

TRI-COUNTY
WEXFORD-KALKASKA-MISSAUKEE

W. Joe Smith
S. C. Moore

TUSCOLA COUNTY

R. L. Dixon
C. W. Clark

WASHTENAW COUNTY

WAYNE COUNNTY

J. Hamilton Charters
J. A. Kimzey
Leo Dretzka
Roger V. Walker
Louis J. Hirschman
Harry M. Malejan
Walter J. Wilson
John N. Neary
Harry F. Dibble
Henry R. Carstens
Harold E. Clark
Geo. E. Frothingham
Wm. J. Stapleton, Jr.
Alex W. Blain
Geo. M. Livingston
H. A. Reye
Wm. J. Cassidy
Lynn Webber
Angue McLean
Armand Kersten
J. H. Dempster
Rollin H. Stevens
Ray Connor
T. P. Clifford
John L. Chester

L. F. C. Wendt
Guy Connor
Frank A. Kelly
J. W. Cunningham
Harry C. Staltzstein
Jos. H. Andries
C. R. Van Gundy
Wm. H. Rogers
Wm. A. Hackett
M. P. Fisher
Howard W. Peirce
Wm. C. Lawrence
John J. Corbett
L. E. Clark
J. A. McGarvah
Douglas Gordon
Richard M. McKean
Wm. S. Reveno
Ira G. Downer
A. L. Gignac
G. Van Amber Brown
Edw. D. Spalding
C. Hollister Judd
Chas. F. Kuhn
T. J. Foster

SCIENTIFIC SECTIONS

CLINICAL PROGRAM

ARMORY AMPHITHEATRE

FIRST SESSION

Wednesday, September 9th, 9 A. M.

F. J. Sladen, M. D., Detroit, Presiding.

General Topic:—"The History and Examination of the Patient from Various Points of View."

1. 9:00 a. m.—Opening Remarks.
   President C. C. Clancy, Port Huron.
2. 9:15 a. m.—Clinical Conferences.
   J. B. Jackson, M. D., Kalamazoo, Chairman of the Council.
3. 9:30 a. m.—From the Medical Point of View.
4. 10:00 a. m.—From the Surgical Point of View.
5. 10:30 a. m.—From the Pediatric Viewpoint.
   I. A. Abt, M. D., Chicago.
6. 11:00 a. m.—From the Ophthalmological and Oto-Laryngological Point of View.
   J. A. Stucky, M. D., Lexington, Ky.

7. 11:30 a. m.—From the Point of View of Public Health.

SECOND SESSION

Wednesday, September 9th, 2 P. M.

J. W. Vaughn, M. D., Detroit, Presiding.

General Topic:...."The Kidney in Its Relations to Disease."

8. 1:30 p. m.—MEDICAL—The Classification, Recognition and Treatment of Chronic Nephritis.

9. 2:00 p. m.—SURGICAL—Tuberculosis of the Kidney, Its Diagnosis and Treatment.
Hugh H. Young, M. D., Baltimore, Md.

10. 2:30 p. m.—PEDIATRICAL—Acute Nephritis in Children and the Relation of Childhood Affections to the Kidney in Adult Life.

11. 3:00 p. m.—GYNECOLOGICAL—Pyelitis and Pyelonephritis. The Relation of the Kidney to Pelvic Conditions.

12. 3:30 p. m.—OBSTERICAL—Eclampsia and the Kidney in Pregnancy.
David S. Hillis, M. D., Chicago, Ill.

13. 4:00 p. m.—OPHTHALMOLOGICAL—Ocular Evidences of Renal Diseases.
Harry S. Grable, M. D., Chicago, Ill.

THIRD SESSION

Thursday, September 10th, 9 A. M.

General Topic:—"General Symposium Upon the Topic of Malignant Disease."

14. 9:00 a. m.—MEDICAL—The Problem of Cancer as Met by the Internist.

15. 9:30 a. m.—SURGICAL—The Contact of the Surgeon with the Problem of Cancer.

16. 10:00 a. m.—GYNECOLOGICAL — Cancer in the Field of the Gynecologist.

17. 10:30 a. m.—OPHTHALMOLOGICAL AND OTO-LARYNGOLOGICAL — Primary and Metastatic Cancer of the Head.
Harvey L. Pollack, M. D., Chicago, Ill.

18. 11:00 a. m.—ROENTGENOLOGICAL—Roentgenotherapy and Radiation in the Treatment of Cancer.

19. 11:30 a. m.—PATHOLOGICAL — The Cause and Prevention of Cancer.

FOURTH SESSION

Thursday, September 10th, 1:30 P. M.

B. N. Culver, M. D., Battle Creek, Presiding.

General Topic: "Acute Infections and Infectious Diseases."

20. 1:30 p. m.—MEDICAL — Pneumonia — Modern Prophylaxis and Therapeutics.
Fred T. Lord, Boston, Mass.

21. 2:00 p. m.—SURGICAL—Septicaemias and the Use of Dyes in Therapy.
Hugh H. Young, M. D., Baltimore, Md.

22. 2:30 p. m.—PEDIATRICAL—The Newer Epi-Epidemics of Childhood in Recent Years.
I. A. Abt, M. D., Chicago, Ill.

23. 3:00 p. m. — PUBLIC HEALTH — Infectious Diseases and the Health of the Adult in Recetn Years.

24. 3:30 p. m.—GYNECOLOGICAL AND OBSTETRICAL—The Results of Acute Pelvic Infections and the Practice of Gynecology and Obstetrics.

25. 4:00 p. m.— OTO-LARYNGOLOGICAL — Accessory Nasal Sinus Infections in Children.

SECTION ON OPHTHALMOLOGY AND OTO-LARYNGOLOGY

Tuesday, September 8th, 2 to 5 P. M.

Grand Rapids.

Butterworth Hospital—Clinics.
Under the direction of Dr. Huizinga, given by the local Eye, Ear, Nose and Throat men.

6:30 p. m.—Section Dinner—Morton Hotel.
Following the dinner there will be several Post-Graduate Talks, the following ones being already listed.

"The Conservation of Vision in School Children."
J. G. Huizenga, M. D.

"Recent Advances in Ophthalmic Therapeutics."
Harry S. Gradle, M. D.

"The Relation of the Specialist to General Medicine."
S. A. Stucky, M. D.

The Journal
OF THE
Michigan State Medical Society
ISSUED MONTHLY UNDER THE DIRECTION OF THE COUNCIL

PUBLICATION COMMITTEE
R. C. Stone, Chairman.....Battle Creek
C. D. Darling.....Ann Arbor
J. D. Bruce.....Saginaw

Editor and Business Manager
FREDERICK C. WARNSHUIS, M. D., D. Sc., F. A. C. S.
Grand Rapids, Michigan

Entered at Grand Rapids, Michigan, Postoffice as second class matter.
Acceptance for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917, authorized August 7, 1918.

All communications relative to exchanges, books for review, manuscripts, news, advertising and subscriptions are to be addressed to F. C. Warnshuis, M. D., 4th Floor Powers Theatre Building, Grand Rapids, Michigan.
The Society does not hold itself responsible for opinions expressed in original papers, discussions, communications, or advertisements.

Subscription Price—$5 per year, in advance

AUGUST, 1925

Report Malpractice Threats Immediately to Doctor F. B. Tibbals, 1212 Kresge Building, Detroit, Michigan.

Editorials

PRESIDENT CLANCY INVITES YOU

The coming Annual Meeting of the State Medical Society will be upon us very shortly and if we are to get the greatest profit out of the event, it might be well for us to keep the dates of the meeting in mind and plan our summer outing so that three days of it will be spent at Muskegon.

Heretofore the yearly gatherings of the physicians of the State have not been so largely attended as the merits of such meetings really warranted, if we are permitted to judge by the number of registrations found in the record. The average seems to have been much less than one-fourth of the total membership, which does not indicate a very robust interest in the State Society, nor a large respect for its importance.

Perhaps it may be that the meetings have been looked upon with some indifference; or the members have not been altogether satisfied with the programs presented for consideration on these occasions. In any event, it seems quite plain that the physicians of Michigan are not unduly enthusiastic concerning the affairs of their State Medical Society, since they have manifested no great interest in it.

Medical conventions are held for the purpose of group study of scientific matters, in which open forum every member may take part, add something to his own store of knowledge and at the same time bring a message of value to his brothers.

Again, there is another phase of such gatherings that is not without its profit to all concerned, and that is the cultivation of the social spirit so necessary to the promotion of understanding and friendship among neighbors, and no one will argue that the need is non-existent.

Through the columns of the Journal you have already been advised of the new plan adopted by the executive officers for conducting this year's program, which provides that all business shall be done in the general sessions of the Society, and that the program for each day shall cover the assignments in regular order.

In this wise every member shall have the opportunity of taking part in all the proceedings of the convention, and will no doubt find the meetings beneficial and at the same time enjoyable.

The plan is a departure from earlier methods followed. It has proved popular and workable elsewhere, and we anticipate the profession of Michigan will be likewise pleased and register their approval of the change at the end of the session.

In any event, it will probably dispose of the complaints made in the past concerning the matter of sections being carried on at the same hour, thus limiting the chance of visitors getting them, and often resulting in keen disappointment because of missing the very subjects in which they have greatest interest.

May I again suggest that you keep open the time from September 9th to 11th and spend these days at the Medical Meeting in Muskegon.

C. C. Clancy.

A. L. SEELEY, M. D., DECEASED

It is with deep regret and emotional sadness that we are compelled to announce to our members, and his many friends, the death of Dr. A. L. Seeley of Mayville, which occurred on July 9th. The passing of this man, who has so long been actively identified with our State Medical Society in the capacity of member, Councillor and Chairman of the Council, deprives the profession of one of its most honorable and esteemed fellows.

For many years Dr. Seeley served as a member of our Council and was its Chairman for two years. In his official capacity and also as

a member, Dr. Seeley devoted much time and contributed unstintingly to the advancement of our organizational interests and ever sought to render that service which would be most helpful to his fellow members. During our some fifteen years of more or less intimate contact with him, never did we once detect a selfish trait, nor did we find him seeking ought for self. In all the incidents that arose and in all the problems that presented, his sole thought was to conserve and enhance the interests of his fellows. Thought of self was farthermost from his mind and his deepest concern was to build for his fellowman.

That was the spirit that motivated Dr. Seeley and it little mattered to him what the official title might be as long as he could serve the Society that he loved. It was that service that he contributed, together with the service of his fellow workers, that has made it possible for our State Society to attain the ends that characterize our organization in Michigan. It is such men that our future depends upon and which makes possible the spirit of modern medicine.

To Dr. Seeley's bereaved family, and to his son, Dr. Ward Seeley of Detroit, do we extend on behalf of our members a tender sympathy and sincere condolences. We mourn with them in a mutual loss. We find solace in the examples that he erected and in the manly characteristics of the life that he lived. Dr. Seeley is ever enshrined in our memory and as we strive to attain the ideals for our Society his influence that he wrought will ever inspire the efforts to be expended by both officers and members.

INFANT MORTALITY

The Child Health Association has just issued a statistical report on Infant Mortality for the year 1924 covering 667 cities of the United States. This report deals only with deaths of one year or under. In cities with population of 250,000 or over, Seattle is lowest with 45 per 100,000, and Pittsburgh the highest with a 92 rate. In cities of 100,000 to 250,000, Cambridge is 42, with Fall River, 93. In the 50,000 to 100,000 class, Long Beach, Calif., is 41, with Charleston, S. C., 153. In the 25,000 class, Oak Park, Ill., has a rate of 29, and East Cleveland, Ohio, 149. The average rate for all the cities reported upon is 72.2 per 1,000, a gain of 5.8 per cent over 1923. Michigan stands 21st in the list, with Oregon first and South Carolina thirty-second. Michigan's rate of 76 is based on 28 cities reporting. Monroe has the highest rate of 144 and Adrian the lowest with 43. Detroit is 79, Grand Rapids 53, Flint 69, Saginaw 76, Bay City 50, Jackson 62, Muskegon 71, Kalamazoo 5.

The value of these statistics rests in the fact that intelligent prenatal and post-natal care will reduce the infant mortality rate. This is clearly demonstrated by the low prevailing rates in localities where such care and instruction is available. The high rates are recorded where little or no attention is given to the mother and infant.

TAX REDUCTION

The following letter is largely self-explanatory. We urge that every member read it carefully and then comply with the request that is found therein. There is no question but what the medical profession has unjustly been imposed upon in the matter of federal taxes. That imposition will continue unless a well directed effort is made to record our protests and set forth our reasons why we should be relieved of this taxation. We sincerely hope that every member will file his protest and enter his plea that relief be forthcoming. It is imperative that this be promptly done in order that Congress may be guided by the sentiment that is recorded before its next session. Write today, and thus aid the Legislative Bureau of the A. M. A. to press this demand for relief before the proper members of Congress. The letter follows:

May 27, 1925.

Michigan State Medical Society,
Powers Theatre Building,
Grand Rapids, Mich.

Dear Dr. Warnshuis—The President and the Secretary of the Treasury are reported to be studying the operation of the Revenue Act of 1924, with a view to recommending further tax reductions. They aim, it is said, to complete the study before October 12, when the Committee on Ways and Means of the House of Representatives will meet to consider the matter, and to frame such legislation as the Committee deems proper. The legislation framed by the Committee will be submitted to Congress, probably soon after it convenes on the first Monday in December next. If the medical profession is to obtain relief from the tax burdens of which it has so long complained, it must get the Treasury Department, in connection with its preliminary study of tax conditions, to make a report and recommendation favorable to the profession.

The grievances that have thus far come to my notice are:

(1) The continuance of the war tax imposed on physicians under the Harrison Narcotic Law, by the Revenue Act of 1918;

(2) The denial of the right to deduct certain professional expenses in the computation of the physician's income tax, which is equivalent to imposing a tax on the activities out of which such expenses arise, namely—

(a) A tax on attendance at meetings of medical societies, and

(b) A tax on post-graduate study.

Your Association is urged to bring these griev-

ances to the attention of the President and the Secretary of the Treasury by letters addressed to them, and by personal interviews so far as they may be practicable. It is advisable that this be done not only by your Association in its organized capacity, but also through its several county and district societies and through its individual members.

Your United States senators and representatives, too, should be informed of these grievances, by letters and by personal interviews, and they should be urged to write to the President and to the Secretary of the Treasury at once, urging favorable action on the appeals of the medical profession.

The support of your senators and representatives is essential—and should be obtained now while they are at home—for they will have to pass on any recommendation the President may make. Letters addressed by them to the President and the Secretary of the Treasury are not urged as an exercise of political influence, but rather as a method of letting the President and the Secretary know that a favorable recommendation sent by them to Congress will meet a favorable reception.

If the President and the Secretary of the Treasury can be convinced now of the justice of the complaints of the profession and lead to recommend legislation for relief, the first step toward obtaining relief will have been successful. Without such recommendation, the profession will be handicapped from the start by the fact that the President has not recommended the relief sought.

Please let me know what you do with respect to this matter.

Yours very truly,

W. C. Woodward, Executive Secretary,
Bureau of Legal Medicine and Legislation.

July 17, 1925.

Michigan State Medical Society,
Grand Rapids, Mich.

Dear Dr. Warnshuis—Since April 18, 1925, I have called the attention of all of our State Medical Associations to the urgency of action to impress on the President and the Secretary of the Treasury the need for remedying certain apparent inequities in the federal tax laws, that seem to discriminate against the medical profession and the sick. A request was made that each association report whatever action it might take with respect to the matter. Only nine reports have been received, and, moreover, but few protests have been filed with the Treasury Department. I am compelled, therefore, to urge on you again the importance of immediate and forcible action.

Under direction of Hon. William R. Green, of Iowa, Chairman of the Committee on Ways and Means, of the House of Representatives, a committee of Treasury Department experts is now working on a preliminary draft of legislation looking toward tax reduction. On the action of Representative Green and this committe much depends. What that action will be will depend largely on the representations made by the profession throughout the country. It is for you, therefore, to press this matter home if tax reduction is to become an accomplished fact.

If your Association is not among those who have already protested to the President and the Secretary of the Treasury, will you not file a protest at once? Will you not in any event file a protest with Mr. Green, addressing him at the House of Representatives, Washington, D. C.? Probably too, in every case there is something that your Association can do toward stimulating protests by your County Societies and by individual members of your Association and toward stimulating interest on the part of your senators and representatives generally.

I shall appreciate it if you let me know what you do with respect to this matter.

Yours truly,

W. C. Woodward, Executive Secretary,
Bureau of Legal Medicine and Legislation.

GROWING PATERNALISM

(NOTE:—*The following address, delivered by the Governor of Maryland under the auspices of the American Bar Association, is reprinted from the "Detroit Saturday Night." It is germain to many of our medical relationships to the people, the state and the nation. It deals with fundamentals. It indicates the perils that threaten to involve us. We feel that our members will benefit by the facts presented.*—Editor).

Is it better to concentrate the powers of government, or is it better to distribute them? Is it better to centralize the governmental structure in one place, so that all its activities reach out from there to all parts and peoples of the country; or is it better to divide up the country, along natural and appropriate lines, into different units, and leave the people of each unit free to govern themselves, except as to matters which concern them all and to which a uniform standard can be applied?

For this country that question was settled by the adoption of a government in which only two classes of powers were centralized. First, those powers which affect our relations and contact with other nations. These must be centralized so that our foreign policy may be a united one. Secondly, those powers which the federal govrenment must have in order to operate as a government at home; powers which affect everybody in the country, and which, therefore, have to be exercised for everybody by a central authority. In all other respects the people were left free to govern themselves through political units or states, set up for that express purpose.

It was 138 years ago that this distinction between the functions of the federal government and of the state government was made. One hundred and thirty-six years ago the states began to assume the responsibility thus placed upon them—the responsibility of dealing with every governmental purpose not national or international in its scope in such manner as their own people willed.

This view of state responsibility was sound. It is still sound. On no other theory is national unity and national harmony possible in a country of 110,000,000 people, who include 14,000,000 of foreign birth, as well as a great colored population, residing throughout a territory 3,000 miles from sea to sea, comprising agricultural communities and industrial communities, urban settlements, rural areas and the vast spaces of the west, and reflecting everywhere differing opinions, wants and needs.

For a century and a quarter this theory was the base rock of our institutions. For a century and a quarter the states fulfilled their responsibility of local self-government, within the field reserved to them, as their peoples willed.

These were the years which witnessed the growth and development of the country from small beginnings

to the greatest nation on the earth. We grew from 13 states to 48 states. Foreign possessions were added to our domain. The sail boat was superseded by the ocean liner, the stage coach became the transcontinental railway, Morse gave us the telegraph, Bell the telephone and the Wrights conquered the air. In business and finance, in industry, in agriculture, in medicine, in science and inventive genius, we were surpassed by none.

We did all this in the span of a century and a quarter, and with the states meeting and fulfilling all the responsibilities which the constitution placed upon them. Indeed, with the one exception of writing into the constitution the political amendments which reflected the result of the Civil War, we did it all without a single change in our organic law as it had existed for more than a century.

Thus our country down to the beginning of the last decade, or nearly to it. And it has remained for this last decade to witness an increase in federal power and a decrease in state responsibility which constitutes a governmental revolution. Only a short 10, or at most 12 years, but this has sufficed to wrest from their moorings definite and long settled principles. It has sufficed to fashion institutions entirely foreign to the philosophy under which our government grew to world ascendancy.

Consider the revolution which the past 12 years have wrought in the federal government's power over the earnings and property of its citizens.

Upon nothing were the men who drew the constitution more determined than that the federal government should never exercise the great power of taxation in an arbitrary or despotic manner. So in the constitution itself they placed clear and exact limitations on the exercise by congress of its taxing power.

Under these limitations, for a century and a quarter the federal government could levy no direct tax unless it was distributed among the states on the basis of the number of their inhabitants. In 1913 the sixteenth amendment was adopted, and this provided that one kind of a direct tax need not be apportioned among the states on the basis of population. This was an income tax—the easiest and most tempting of all ways for the government to raise money. In the case of an income tax, the requirement of apportionment, which the constitution had imposed for the protection of the people, was removed, and no other limitation put in its place.

Therefore, there is now no limitation on the federal government's power to tax incomes. It can tax them as high as it pleases. It does tax them to the aggregate amount of $1,644,883,576. It can take as much more of the citizens' earnings as it wants. The government's power is complete, arbitrary and despotic. Nothing like it was ever contemplated. On the contrary, the very thing was denied.

So much for the federal government's new-born power to take the income from labor and property during life. Now for the government's power to take property itself upon death.

There have been altogether four federal inheritance taxes in this country. The first three were avowedly war measures. They yielded comparatively little money, and all were repealed within a few years, as soon as the war necessity had passed.

The fourth is the present federal estate tax enacted in 1916. This was not passed as a war measure at all, but as a revenue measure in time of peace. Subsequent amendments doubtless had war expenses in view, but the war ended nearly eight years ago, and the tax is still here. The maximum rate has risen from 10 per cent to 40 per cent. In 1924 it yielded $102,000,000, and the estimated yield for 1925 is $114,000,000.

Except in great and sudden emergency, the proceeds from a tax of this kind do not belong to the nation at all. They belong to the state in which the citizen who possessed the property lived, because it was under that state's protection that he worked and acquried and invested his earnings.

For exactly 127 years the federal government recognized this. For 127 years the government regarded no emergency except war sufficient to justify it in taking any part of the citizens' property upon his death. For 127 years it released this source of revenue to the exclusive use of the states again as soon as the war was over.

But nine years ago the federal government adopted an inheritance tax as a permanent, peace-time revenue measure, and under it takes and therefore destroys as much of the citizens' capital as it pleases as soon as he dies.

Consider, next, the hold which the federal government has taken upon the very heart and life blood of industry—power.

Under the interstate commerce clause of the constitution, the federal government has the right to exercise jurisdiction over navigable streams, in order to keep navigation open. Under this power the government asserts control over every water power development in the country, if the stream is navigable at its mouth or anywhere below the development.

At the point where the power is developed the stream may be non-navigable in fact. The development may have not the slightest effect upon navigation below or at the mouth, perhaps miles and mlies away. Yet on the claim that it might have some effect, the government, whether the claim is true or not, regulates such developments to the minutest detail.

Since practically all streams capable of water power development do finally become navigable, if not before, then when they empty into the oceans, or the lakes or the gulf, the government under this theory asserts control over practically every water power development in the land. When this control has become complete and linked up, the government contemplates apportioning the power among the states.

The government has for years exercised control over the railroads. This is proper, as interstate transportation is one thing which, with the growth of the country, has overleaped state boundaries. But to railroad control the government now adds the control of hydro-electric power, which is the life of a vast portion of our industry at present, and perhaps of all industry in the future.

There must be those who believe that American institutions were builded wisely and soundly. There must be those who believe that the American character and the American resources which were the proud products of the first century and a quarter of our governmental existence, reflected, in large measure at least, state fulfillment of state responsibilities.

What must those of you who believe that think when you behold a federal government which, in a short 12 years, has acquired the power to take as much of your earnings as it wants, while you live; and your property, if it wants, when you die; and which does both these things; and now reaches out to grasp the force and energy which make the wheels of all industry turn, and with this added to the control of transportation it already has, will hold within its hand not only the earnings and the property of the citizen, but the industrial life of the nation as well.

And what of the individual's personal rights and freedom? For the destruction of state responsibility does more than destroy or imperil property rights. It destroys or imperils liberty and freedom, too. Both of these things—property rights and personal rights—are dependent upon the state. They can only be safe

when the state is free to fulfill its responsibility of local self government guaranteed by the constitution. Neither is safe when control over them proceeds from a central source.

The advocates of federal control over child labor are doing their part to strike down state responsibility. They will not trust the states ot legislate fairly and humanely in this great field so clearly and so properly left to them by the constitution. They seek to nationalize and standardize the control of the child.

The advocates of federal control over education are doing their part to strike down state responsibility. They will not trust the states to legislate fairly and as seems best to them, a right clearly and properly left to the states by the constitution.

The advocates of federal aid are doing their part to strike down state responsibility. . . .

So the story could go on. And its inevitable sequel goes on too, local conditions met with standardized federal remedies, instead of by the people back home in their respective ways; resentment at laws and regulations which reflect not what the people at home need, but what others somewhere else want them to have; incentive and initiative giving way before the deadly effects of paternalism and standardization; ever mounting expense of federal bureaus, whose personnel has grown 25 per cent since 1914 and five times faster than the population of the country; federal inspectors and investigators, often irresponsible and incompetent, continually prying into business which ought to be personal, and exercising supervision and demanding reports and audits of almost every conceivable kind; and lastly, when the individual finds himself confronted with the obstacle of incompetent red tape, he is utterly unable to see and present his case to the federal official who is theoretically in charge, as could be done without difficulty to the state official who ought to be in charge.

And is not this new order amazing in the swiftness of its coming and in the destruction it has wrought?

A new experiment in government, ordained for a new sovereign land by the men whose valor and whose sacrifice had won independence and who, to fashion it, drew on all the lessons taught by the rise and fall of nations in the centuries gone before.

That history had taught them that the government which would secure for them and their posterity the blessing of liberty was one which struck the balance between federal power, on the one hand, and state responsibility and individual freedom, on the other.

On that rock they builded, and to them and to their posterity came in truth the blessings of liberty. For a century and a quarter those blessings were preserved inviolate and they enveloped the land as it progressed to leadership among the nations of the earth.

And then, in a short 12 years, they are stricken and wounded one by one.

May it not be too much to hope that they are only wounded, and not destroyed. May it not be too much to hope that in the nearness of time the pendulum may swing back again. May it not be too much to hope for a rededication to the constitutional guarantee of state responsibility, which for so long a time made the blessings of liberty secure.

DELINQUENT MEMBERS

During the past month we have been sending letters to those members who either by neglect, or because for other reason have failed to pay their 1925 dues and are recorded as suspended for non-payment of dues. These lists were first sent to County Secretaries for a recheck and confirmation and the effort was made to verify the correctness of these records. In spite of this precaution there were included in the list, names of members who had paid, and they received the notice of their apparent delinquency. To receive such a notice after one had paid was unfortunately a disturbing incident. For the error we have tendered personal amends and regret and have corrected our records accordingly. Other members were surprised to find that they had been careless and permitted their dues to go unpaid and on receipt of the notice they promptly removed the cause for suspension. There were some who had some kind of a grievance and for that reason were terminating their affiliation. In these instances we are endeavoring to remove the cause for local dissatisfaction and hope to be able to cause these doctors to change their intention of dropping out of the ranks of organized medicine. In a few instances local secretaries had failed to remit the state dues. There was but one member who complained of the raise in dues and refused to pay them.

On the whole, the replies and the results obtained from the sending out of these notices were very helpful and from the information obtained we feel that we are in a position whereby we may render some definite services and assistance to some of our County Societies. More and more are our members appreciating the value of organized activity and they recognize the personal benefits that accrue. We are publishing a few of the replies in "Among Our Letters" in this issue and refer the reader to that department of the Journal. Until one pauses to consider that which is being accomplished by our State Society and the efforts that are being expended and by reason of which each doctor benefits, one does sometimes wonder what is done with his dues. If any member is in doubt, or has a notion that he is receiving inadequate returns from his membership, we will welcome the opportunity, if he will afford it by writing to us, to point out the personal returns that come to him and that are of value far over and above the dues he pays. Our regret is that we are limited in doing more for our members. In time, however, we hope to develop additional benefits and until then we solicit any suggestion that will enable us to expend our present resources for the greatest good to all our members. By way of interest, we are attaching a copy of the letter that is being sent to all delinquents:

Dear Doctor:

In checking over the members of your County, I regretted exceedingly to find that you had been placed on the suspended list for 1925 for non-payment of dues. I cannot quite believe that you are willing to permit your membership to lapse, or that you are willing to withdraw from our organization. I am

therefore addressing this personal letter to you to urge that you cause yourself to be re-instated by remitting today, your annual dues to the Secretary of your County Society. Please do so, doctor, for we want your support and interest.

Our Michigan State Medical Society is engaged in a year of activity that is directed solely for the interest and welfare of our members. We but mention the following:

1. Legislative Activity—Defeating the Cults.
2. Post-Graduate Clinical Conferences.
3. Public Lectures for the Medical Education of the Public.
4. The Journal.
5. Medico-Legal Defense in Mal-practice suits.
6. National Legislation.
7. Committee Activity.
8. Executive Secretary's Aid to County Societies and District Groups.
9. An Annual Meeting in Muskegon on September 8, 9, 10, that will consist entirely of Clinical Programs during two whole days, conducted by nationally known Clinicians.

These, doctor, are simply some of the outstanding activities for which we desire your support by continuing your membership.

You cannot afford to step down and out. Organized medicine, as represented by your County Medical Society, is accomplishing much for the individual doctor. He benefits greatly. He needs the support. That's you, doctor.

Will you not please re-instate yourself? If perchance you have any real or fancied grievance, will you not write me about it? I am sure we can adjust any difficulty that may exist. We want you to continue your membership and are making this personal request of you to do so. Please.

Yours sincerely,

F. C. WARNSHUIS,
Secretary-Editor.

CAMERON DAY CELEBRATION

A most unusual event occurred in the City of Alpena on Wednesday, July 8th. Alpena's Homecoming had been celebrated, and as a climax to the festivities of the occasion a Cameron Day celebration was held in honor of the completion of forty years of active practice by Dr. Duncan A. Cameron of Alpena. It is not known by the writer that ever, in the history of medicine, has such genuine affection and regard been afforded to the medical practitioner during his life.

The Alpena County Medical Society, co-operating with the Homecoming Committee and Cameron Day Committee, staged a Homecoming for medical men who have either practiced formerly in Alpena, or who have received their high school education in Alpena and are now practicing elsewhere. Thirty doctors responded to the call. A ball game began the festivities at 3 o'clock in the afternoon, when a team of medical men met the local clergy in a seven-inning combat. At 6 o'clock a dinner was held at the First Presbyterian church, at which Dr. Cameron was the guest of the Homecoming doctors.

Following the dinner and short program, the Cameron Day Committee moved their procession of two bands, followed by over 1,000 children and adults who had been brought into this world by the veteran practitioner, to the meeting place of the Medical Society, where the doctors led the parade. Dr. Cameron, with his daughter, Miss Jean, had the position of honor at the front. The streets were lined with a concourse of people estimated at 20,000, who vigorously cheered the hero of the day.

The procession proceeded to the City Hall Square, where a short program was given. To the tune of the bagpipes Dr. Cameron and the participating physicians took their seats upon the platform. Fred L. Richardson, a veteran lumberman of this city, acted as Chairman. Fully 12,000 people in hushed expectation arranged themselves about the platform. A duet by Ralph Michaud and Fred Arnold started the program . The Chairman then introduced Dr. J. B. Kennedy of Detroit, a life-long friend of Dr. Cameron, who gave the chief address of the evening. He compared the honored physician with the hero, Dr. William McClure of the "Bonny Briar Bush." Frequent applause by the immense gathering showed that Dr. Kennedy's magnificent voice reached to the outmost ring of the assemblage. Miss Adeline McKenna, with the assistance of the bagpipes, gave several Scottish dances.

Dr. Cameron at this time was called upon for a few remarks. He said that Henry Ford and John D. Rockefeller were able to count their money, while he was unable to count his friends.

Mr. Carl R. Henry of Alpena then delivered a magnificent appreciation of the services rendered by Dr. Cameron in the City of Alpena. He described Dr. Cameron's growth with the city from a lumber town to a modern industrial city, and of his devotion to the practice of medicine, and kindness of heart which have won for him the esteem and admiration of all. Concluding, he presented to Dr. Cameron a fine automobile presented to him by his devoted friends.

A reception at the Memorial Hall to Dr. Cameron and a dance following, completed the festivities.

The general Cameron Day program was arranged by a committee of citizens, of which William J. McDougall was Chairman, and Frank J. Foley, Secretary and Treasurer. The program as described above was arranged completely by the committee, with the exception of the ball game and dinner, which was arranged by the Medical Society.

The Secretary feels that he has been unable, in the language at his command, to describe the

fineness of this occasion and so includes in this report the write-up by our local paper.

C. M. Williams, M. D.,
Secretary.

The bare-fact record of the life of Dr. Duncan A. Cameron, printed below, is a fine example of how a biography ought not to be written, particularly the biography of a man like Dr. Cameron. The sketch was taken from a book of biographies of prominent Northern Michigan men after the doctor had replied that he was not on the witness stand when a News sleuth cornered him and tried to get the story of his life.

A properly written biography of the doctor ought to be punctuated, every other line, with the cry or smile of one of those 2,700 babies, or a mild but expressive cuss word. There would be tears and smiles in every line of it, the hearty laughter of the friends the warm-hearted Scot has won for himself during forty years in Alpena, the grateful prayers of those whose sufferings he has eased, the heart throbs of the hundreds who paid to Dr. Cameron a tribute of love as the climax of the Cameron Day observance at the civic center Wednesday night.

Here are the cold facts:

Dr. Duncan A. Cameron was born near Strathroy, Canada, on May 7, 1863, the son of John and Ann Cameron. His father was a native of Scotland, and emigrated to Canada in 1847.

Dr. Cameron received his high school education at McGill, Quebec. After his graduation from high school he entered the medical department of the University of Montreal, graduating in 1884. During the following year he gained practical medical experience in the hospital at Montreal. In July, 1885, he began his career as a practitioner in Alpena, and has remained in this city from that time. In 1885 he took a post-graduate course in New York City, and in 1898 and 1899 he was a student at a medical institution in Chicago. In 1900 and 1901 he studied in Europe principally in Edinburgh, Scotland.

Dr. Cameron is a member of the Alpena County Medical Society, the Michigan Medical Society, and the American Medical Association. He is also prominent in Masonry, being a member of Alpena lodge, Thunder Bay Chapter, Alpena Commandery, No. 34, a member of the Shrine at Detroit, and of the Michigan Sovereign Consistory.

MORTALITY PERCENTAGES

It was well pointed out during the sessions of the Surgical Section of the A. M. A. at Atlantic City that there is no available and reliable record that imparts the existing surgical mortality that prevails in our hospitals. It is true that records are available from certain well known clinics, but these cannot be taken as representing surgical end results in the hundreds of hospitals that are found in every state. Neither do they represent the achievements of the run of surgeons. True, we know that in certain hospitals the average mortality from appendectomies is in neighborhood of from 1 to 2 per cent. There are many hospitals where an analysis of their statistics will reveal a mortality rate of from 8 to 15 per cent and even higher. It is likewise known that in certain clinics the mortality from surgical intervention in gall-bladder disease the mortality is in the neighborhood of from 2 to 4 per cent, and in some it is as low as 1½ per cent. On the other hand, other hospitals will reveal a mortality rate in gall-bladder surgery of 18 to 25 per cent. Going down the list of mortalities published by clinics we find that the death rate in gastric surgery is from 1 to 3 per cent; hysterectomies, 2 to 8 per cent; prostatectomies from 1 to 5 per cent; kidney operations, 4 to 6 per cent, but in these clinics this surgery is being done under exceptional and more or less ideal conditions, with super-trained operators, with skilled attendance and with a nursing and post-operative care that exceeds that which is available in the average hospital. Therefore these mortality rates and end-results cannot be taken as representative of the same type of surgery that is being done in the hospitals of our country, and these figures cannot be quoted to patient, friend or consultant as indicating what may be expected or for the forming of a prognosis.

It would therefore seem that some step should be taken to secure the mortality rates from all our hospitals, to analyze them and then prepare a table that imparts the average rate that prevails. Such a study would reveal the type of surgery that is being done in each hospital and would enable the staff of these hospitals to take the necessary steps to reduce excessive percentages. We are of the opinion that this is a matter of exceedingly great importance in these days of extensive and sometimes promiscuous operating. We are also inclined to the belief that this survey might well be undertaken by our American Medical Association, calling in the assistance of State Medical Societies to aid in the surveys of individual states. A standard, average surgical rate for all major surgical procedures should be made available at an early date.

POST-GRADUATE STUDY

We desire to quote from Osler's writings certain paragraphs that bear upon the title that we have placed at the head of this editorial. Our purpose in doing so is to not only awaken, but also to maintain the habit of continued and well planned post-graduate study and reading among our members. Osler said and wrote extensively upon the subject of continuing one's researches, reading and study after graduation. His conclusions and advice is still applicable today to every doctor. But let us now present some of his observations:

"There are two classes of physicians: those who practice with their brains, and those who practice with their tongues."

NATIONALLY KNOWN SPEAKERS ON ANNUAL PROGRAM AT MUSKEGON

"A good weekly and a good monthly journal to begin with, and read them. Then for a systematic course of study, supplement your textbooks with the larger systems. Read with two objects: First, to acquaint yourself with the current knowledge; second, read to understand and analyze your cases. Every day do some reading apart from your actual practice."

* * * *

"The third essential for the practitioner as a student is the quinquennial brain dusting, and this will seem the hardest task to carry out. Every fifth year back to the hospital, back to the laboratory, for renovation, rehabilitation and rejuvenation."

* * * *

"For the general practitioner a well used library is one of the few correctives of the premature senility which is so apt to overtake him. Self-centered, self-taught, he leads a solitary life, and unless his every day experience is controlled by careful reading, or by the atrition of a medical society, it soon ceases to be of value and becomes a mere accretion of isolated facts without correlation."

* * * *

To some these quotations may not be overly convincing. If one but ponders over them there will be much for thought. As in Osler's time, so today, there are many doctors carrying on their work, making calls, seeing patients in their offices, who are continuing along the same lines that was taught them in their school days ten, fifteen, twenty-five years ago. They are in a rut of routine and habit. When questioned as to why they do this or that, they remark that they were so taught by their old professor. They do not pause to consider that their "old professor" is either dead or is no longer teaching the methods he taught twenty years ago. Cast about you and you will find that the man who is standing foremost in his professional work, is the man who takes time to read, study, and who attends his County, State and National Medical meetings and, furthermore, he goes at stated intervals to clinical centers for observation and study. There are many who fail to follow his example and it is to these that we are recommending post-graduate reading and study.

The prestige of foreign study no longer prevails. An ocean trip or a long railroad journey is no longer necessary. The fountain is at your feet and within a few hours' auto ride. The medical department of our State University is about to open a splendid new hospital that will provide abundant facilities for short periods of study. It is to be hoped that those in control of that new hospital will make early provision so that in conjunction with our State Medical Society, short, intensive courses of post-graduate instruction will be available. Detroit, with its Medical School and local hospitals and Clinical Bulletin that imparts to you where work may be seen or done, is another center where post-graduate work may be pursued. Grand Rapids is offering practitioner clinics weekly, with special features twice a month. Battle Creek, Flint, Saginaw and some of our other larger cities afford clinical opportunities. The post-graduate Clinical Conferences that are being conducted under the auspices of our State Medical Society bring to each Councillor District helpful post-graduate instruction.

With these state facilities there need be no raising the question of time, expense or unavailability. If you are not utilizing these opportunities the fault lies in you and that fault is either laziness or a strange, unexplainable mental bent. You are going to be a "down and outer" or someone is going to step on your toes if you neglect your post-graduate study.

AS OTHERS SEE US

(Note: *We are imparting to our members the following that has been extracted from the Journal of the New York State Medical Society. Our object in doing so is in compliance with the instructions of the Publication Committee and for the purpose of imparting the opinion that is being formed in regard to the work that is being carried on by the organized profession of Michigan. To have such an appraisal from those fully competent to judge, is pleasing and inspiring. We trust that those of our number who are carrying on this work will experience a feeling of contentment by this recognition that is given to the work that is being done by our County Societies. Now that we are hitting a healthy stride, let us keep it up and increase our activities.)*

Dr. F. C. Warnshuis,
Powers Theatre Building,
Grand Rapids, Michigan.

My Dear Dr. Warnshuis:

We are enclosing a copy of an article which we will publish in the July issue of the New York State Journal of Medicine. We want to be sure that we are not saying what we ought not to say, but of course, we can't say everything good that we ought to say about organized medicine in Michigan.

Please let us have your suggestions as soon as possible, for we want to go to press before July 1st.

We have a rather hazy idea of the Joint Committee on Public Health Education, and of the District Conferences—you seem to have several kinds of District Conferences. Would you be willing to write us a brief account of

both activities for publication in our August Journal? The account will also help our officers in planning the activities of the State Society.

Congratulating you on the practical character of your Journal, I am,

Yours sincerely,

FRANK OVERTON,
Executive Editor.

THE CONFERENCE OF SECRETARIES OF THE COUNTY MEDICAL SOCIETIES OF MICHIGAN

The Journal of the Michigan State Medical Society is the official organ of the State Society and of its 56 constituent County Societies. The present membership of the State Society is about 3,000 out of 4,500 physicians in the State. The form of organization of the State Society is almost exactly like that of the Medical Society of the State of New York. There are the House of Delegates, the Council, the Executive Committee, and the Executive Officer who, however, is a layman in Michigan.

The Journal is in reality the organ of the State Medical Society, and records and reflects its activities. Its editor is Dr. F. C. Warnshuis of Grand Rapids, who is also Secretary of the State Society. Dr. Warnshuis is also speaker of the House of Delegates of the American Medical Association, and, having seen him preside over the National body, we expected that his editorials and reported addresses would be concise and carry extremely definite suggestions—and we found them even so.

The departments of the Journal cover the range of activities of the Society. That of Editorial Comments is in addition to the formal editorial pages, and carries running comments on the medical news of the month, such as one thoughtful doctor would make to another during a casual conversation. There is a department devoted to Society work and its planned activities. The meetings of the County Medical Societies are reported in an interesting style, but an editorial urges that more reports be sent.

The June number of the Journal of the Michigan State Medical Society contains a 28-page stenographic report of a conference of the Secretaries of the County Medical Societies which was held in Grand Rapids on April 22nd, and lasted from 10 until 5 o'clock. We have read the report from end to end, and have made marginal notes to indicate the points of the speakers, and we have thereby gotten the spirit and the point of view of the leaders who are promoting the practice of civic medicine in the State of Michigan.

The conference was attended by fifteen County Secretaries, three Councillors, and four high officers of the State Society, including President Clancy, who presided. The total attendance was twenty-two.

The subjects discussed included the major acitvities of the State and County Societies, and showed that the officers of the State Society have practical plans which can be put into operation throughout the State. The program was as follows:

1. "Activities of County Societies," Dr. J. B. Jackson, Chairman of the Council.
2. "The Spirit of Modern Organized Effort" Dr. F. C. Warnshuis, Secretary of the State Society and Editor of its Journal.
3. "What are Desirable Features of the Scientific Programs?" Dr. G. J. Curry, of Flint, Secretary of the Genessee County Medical Society.
4. "Aids in Secretarial Work," Dr. H. L. French, of Lansing, Secretary of the Ingham County Medical Society.
5. "Community Responsibility, and the Work of the County Society," Dr. D. F. Kudner, of Jackson, Secretary of the Jackson County Medical Society.
6. "Co-operation with County Medical Societies," Mr. H. G. Smith, Executive Secretary of the State Medical Society.
7. "Round Table Discussions," conducted by Dr. Warnshuis.

Each subject was presented briefly and concisely, and within five minutes; and then followed a general discussion. The topics centered around the specific major activities which are promoted by the State Medical Society. The talks might be divided into three groups of subjects:

1. Inspirational, and the statement of fundamental ideals.
2. The broad activities of the State Medical Society.
3. The details of the execution of the plans by the State and County Medical Societies.

Dr. Warnshuis stated the four fundamental ideals of a County Medical Society to be:

1. To enlist and interest all the eligible members of the profession in your county in the work of your County Society.
2. To cause your Society to enhance the type of medical service in your community.
3. To re-awaken the spirit of organized effort for the attainment of the mastery and honor of our profession.
4. To beget professional fellowship.

These are specific understandable ideals, and, for the purpose of attaining them, Dr. Warnshuis makes four specific suggestions which are the major activities of the State Society. These suggestions are as follows:

1. Bring about better scientific programs for your regular meetings.
2. Foster, inspire and institute, with the aid of selected members, an increasing num-

ber of public meetings for the education of the public in regard to scientific medicine.

3. Adopt and develop a plan of periodic physical examinations.

4. Join with and assume directing control of all public health work, clinics, and hospitals in so far as medicine is involved. (This last suggestion embraces what we have called the practice of Civic Medicine.—The Editor.)

A study of the minutes of the Secretaries' Conference gave us the impression that the four major means for carrying out the activities of the State Society were:

1. The Journal of the Michigan State Medical Society.
2. The field work of the Executive Secretary.
3. The Joint Committee on Public Health Education.
4. District Conferences.

The Joint Committee on Public Health Education was formed in 1922 on the initiative of the Michigan State Medical Society. The organizations which were represented on the committee are the State Medical Society, the University of Michigan, the Detroit College of Medicine and Surgery, the State Department of Health, the State Dental Society, the Michigan Tuberculosis Association, the State Nurses' Association, the State Conference of Social Work, and the Wayne County (Detroit) Committee on Education.

The object of the Joint Committee is to supply popular lectures on medical topics to lay organizations. The committee has about 200 speakers listed. During the past year, the committee arranged for 271 lectures, at which the average attendance was 289 persons.

At least nine district conferences have been held. The May Journal, page 268, and the June Journal, page 330, carry brief accounts of two conferences which are called Post-Graduate Conferences. The programs consisted of all day scientific and clinical sessions, broken at noon by a luncheon by a Rotary or other civic organization, such as a Parent-Teachers' Association. The account in the June Journal concludes:

"The ninth Post-Graduate Conference has brought more proof to the fact that Post-Graduate Conferences that are conducted by the State Society in co-operation with Councillor Districts, and County Societies are what the members of these Societies desire."

When we analyze the suggestions made by the County Secretaries, we find a wealth of details.

Regarding programs, we note the following plans which have been used:

1. Teams of members to arrange programs.
2. Exchange of speakers with other societies, or one Society to put on a program for a neighboring Society.
3. Clinical programs like those of a staff meeting of a hospital.
4. Social activities—luncheons and picnics.

As aids to secretarial work, we note:

1. Getting committees to do the details of the secretary's work.
2. Clerical assistance to attend to mailing and filing.
3. Use of the telephone to get members to the meetings.
4. Send accounts of the meetings to local newspapers.

We note the following suggestions for meeting the community responsibility of County Societies:

1. Close co-operation with the local Boards of Health.
2. Medical publicity to the people.
3. Periodic health examinations.
4. Medical legislation (we find little said on this subject).
5. Charitable activities, especially those in co-operation with lay organizations. There was a lengthy discussion regarding orthopedic clinics conducted by Rotary Clubs, and the concensus of opinion seemed to be that local doctors should direct the medical phases of the clinics, and the laymen the business part, both working in harmony.

Mr. H. G. Smith, Executive Secretary, said that his work was to co-ordinate the activities of the County Societies by three general methods:

1. Visiting County Societies and making medical surveys of the counties.
2. Arranging district conferences.
3. Legislative work during the session of the legislature.

Dr. Warnshuis demonstrated his ability as a presiding officer by his management of the round table discussions, and his definite summary of the points brought out. After the subject of new members had been discussed for some time, Dr. Warnshuis said that he would expect each County Secretary to send him a list of non-members whom the Society would be willing to accept, and that he would write each one a personal appeal to accept an invitation to join.

We feel that our study of the minutes of the Secretaries' Conference and of accounts of the activities of the State Society that are printed in the Journal has aroused our deep interest in the work of the Michigan State Society, and a desire to make the personal acquaintance of the leaders who are doing original work in the practice of civic medicine in Michigan.—F. O.

ALL THE SESSIONS WILL BE HELD IN ONE MAIN AUDITORIUM

THE POST-GRADUATE CONFERENCE —STURGIS

The Fifteenth Post-Graduate Medical Conference will be held at the Klinger Lake Country Club at Sturgis, August 6, 1925. The Michigan State Medical Society and the Third Councillor District, with component County Medical Societies plan to make this one of the best medical meetings ever held in the southern section of the state.

The aim of the conference is to give definite, practical, scientific information to every practising physician and at the same time to acquaint each doctor with the actual work of the State Medical Society and what it is accomplishing for each and every member.

Attendance at Post-Graduate Medical Conferences is a direct indicator of the physicians' interest in the advancement of the science of medicine. Non-attendance at meetings of this type is a warning of retrogression.

The scientific program will be presented by six physicians coming from Flint, Detroit, Central Lake, Kalamazoo, Ann Arbor and Grand Rapids. Informal talks on the work and value of the State Medical Society will be given by J. B. Jackson, M. D., Chairman of the Executive Committee; F. C. Warnshuis, M. D., Secretary-Editor; Harvey George Smith, Executive Secretary, and Ray C. Stone, M. D., Councillor.

"Be there," is the call to physicians of the Third Councillor District and adjoining County Medical Societies.

Editorial Comments

Somebody, somewhere, has disclaimed about the miracle it would be if a man were able to make two blades of grass grow where but one had grown before. Well, that would be a miracle and something to crow about, but today we are witnessing greater miracles. The disclaimers are very silent about the profession's united efforts which have brought about one death where formerly two deaths occured. It is about time that someone rose up and drew attention to this miracle in a voice that has stentorian qualities.

Last month we were privileged to address graduate nurses of Michigan who were assembled in their annual meeting of their state association in Traverse City. We dwelt upon the work that was being done by our Joint Committee on Public Health Education. We suggested that the State Nurses Association, through its membership, might well join in on this work. The request was made that they appoint a Committee to undertake the task of preparing some definite medical information and then inaugurate the movement that this information be supplied by the trained nurse to the patients and patient's family whom she is called upon to attend. A nurse is in more or less close contact with the patient and his family. They discuss with her medical facts and theories. It is here that a nurse can disseminate scientific medical truths and refute the claims and statements of quacks and cultists. If the majority of our graduate nurses could be supplied with certain facts in regard to health, disease and medical truths and if these nurses would disseminate these facts at some time during her service on each case the public would be the recipient of information that would be of untold value. Such a campaign would materially aid the work of our Joint Committee in educating the public in regard to the truth of modern medicine. We were given the assurance that such a Committee from the State Nurses Association would be appointed.

Last month we imparted a program that incorporated a year of work for each County Medical Society. That program outlined the minimum amount of work and activity that a County Society should undertake. There were set forth certain definite pieces of action that would accomplish desired ends. That program was not idealistic or visionary. It is a practical suggestion and outline. If entered upon definite results will ensue and the County Society will find that profit will accrue to it as well as to its members individually. We are therefore urging that the officers of our County Society seriously consider that program and adopt it at this time. Having adopted it, to then set forth at once to carry it out in detail. The Council is very desirous that this plan become the guide of every county organization. Do not neglect this work in your county. If the State Office can be of assistance, do not hesitate to call upon us for such help as we can give. May we not have word that you have set out on the job in your county?

All the sessions of our Annual Meeting in Muskegon will be held in the new Muskegon Armory. The auditorium where all the sessions will be held will be arranged in the form of an amphitheatre, with elevated tiers of seats, so that all can see and hear. The preliminary program will be found in this issue and the final, complete program will be published in the September issue. Those who have been working upon this program are more than enthusiastic and feel that it will be the most profitable and instructive annual meeting that our Society has ever held. We are certain that every man in attendance will find much of interest and personal benefit and that the time he spends in attendance will be a satisfactory investment. Please be again reminded of the dates—September 8, 9 and 10. Secure your hotel reservations now and if you prefer, write to Dr. William LeFevre, Chairman of the Committee on Hotels, and he will provide satisfactory accommodations for you. Plan now to attend.

We are very glad to note that the Wayne County Medical Society has undertaken a movement that seeks to bring about periodic physical examinations not only among the people of Wayne County, but also among their own members. This is a feature of organizational educational work that must be assumed by each county. Every individual should have one or two complete physical examinations each year. President Haggard, of the American Medical Association suggested "Have a complete physical examination on your birthday." Dr. Charles Mayo has stated that he has himself gone over every four months. We shall be interested in the manner and the results

that will accrue from the campaign in Wayne and we sincerely trust that their efforts will be emulated throughout the state.

The Christian Scientist coterie can pose oftener as obstructionists than any other group that we know of. At the last A. M. A. meeting a resolution was adopted that recommended that drivers of motor cars should have tests made for vision acuity before being granted a driver's license. Now these C.S's. rise up in their ignorance and delusions and claim that the medical profession is seeking to grow rich and profit at the expense of motor car drivers. Tommy-rot, we know it, still these deluded and stunted individuals seek to make an outcry and because they have a commercial bent they seek to imply that the recommendation that was made had for its sole object financial returns for doctors. The day is not far distant, however, when this so-called scientist clan will be revealed in true light and the public will be on guard against the statements that eminate from those who are called as its leaders.

Wisconsin's legislature passed a bill authorizing the sterilization of feeble-minded and insane individuals. The Governor of Wisconsin vetoes the bill. The reasons for his veto are that such a law would be a hardship upon the feeble-minded and insane and would prevent commitment of the insane to state institutions. We cannot just quite see the basis for these assertions. The law safeguarded the indivdual so that it would not be applied unjustly or indiscriminately. In the light of our present knowledge, sterilization offers the only hope we have to lessen the rapidly increasing number of feeble-minded and insane. Why, then, should a state executive seek to prevent the application of the only known remedy for this appaling social condition? We trust that the enlightened of Wisconsin will continue in their effort and will educate its legislators and executives so that such a law may be made available for Wisconsin.

We are still requesting the submission of original articles for the Journal. Our members are invited to submit them for publication. Our fund of original articles is exhausted. Inasmuch as our annual meeting will not provide us with papers that are read before sections this customary source of supply is unavailable. We must have original articles. Our members must supply them. Therefore we are again appealing that you submit them, and in goodly number, in order that we may cause our Journal to well reflect the scientific work that is being done in Michigan. Please help us to meet this situation.

To the majority of doctors a fracture always means a broken bone and from then on their only thought is that broken bone, its reduction and its maintenance of reduction. That attitude may account for a number of the untoward results that are encountered. There is more to a fracture than a broken bone and loss of function. When encountered, due thought and consideration should be given to the fractured bone, but one should not stop there. Full and careful consideration should be given to possible additional injury to nerve or nerves, muscles and blood vessels. They are frequently overlooked because no thought has been given to them until weeks later when the immobilization apparatus has been removed and the presence of such involvement is perceived. The majority of the myositis and ischaemic contractures do not result from too tight bandages or splints. It is far more frequently due to rupture of vessels and the tension produced by the hematoma that forms under the fascia and which has been permitted to go unrelieved during the first few days. Nerve involvement can be detected early if one but makes the detailed examination. Torn or detached muscles may likewise be detected. The thought that we are seeking to put over is that when we are treating a fracture our examinations and treatment must extend beyond the mere bone involvement and until such consideration is given to these other structures that are most always involved we cannot hope but to encounter many unsatisfactory end results.

Get while the getting is good, seems to dominate the services of many medical men. We have repeatedly commented upon this attitude and have sought to point out that such a policy will eventually lead us to a most compromising position that will involve the entire profession in the problem of state medicine that will be applied in a degree that will be most unwelcome. We perceive the trend of events and so we are constrained to comment upon this question from time to time with the hope that the accusation of commercialism will not be hurled at us by legislators who will seek to enact laws that will relieve a class of people from paying exhorbitant and unjust fees. Two conversations within twenty-four hours gave us much for thought. A certain trustee stated that the demand for lowered hospital rates was undoubtedly just and indicated for the relief of those who were called upon to meet hospital bills because of sudden sickness or accident. But—and it was an impressive "But"—he went on to state, if hospitals reduced their fees and call upon those who contribute annually to make up hospital deficits by larger contributions, then doctors, who are working in these hospitals, will have to meet up to the situation and reduce some of the fees that they are charging these people or we will have to provide professional services for a fee that is reasonable and which can be met by the average layman. Now, we ask you to just pause and give thought to that statement which imparts an inkling of what is going on in the mind of a layman and business man—The other statement was from a man who has by personal effort and application risen in the ranks of our profession and who today stands out as a respected leader and teacher. In discussing with him the trend of modern professional work he remarked:" There is a large group of men who by their attitude and commercial profiteering are demanding and securing fees entirely out of proportion of the services that they render. They are placing the profession in a direct line for open attack and when that attack is made by the public they will realize that they have started something that will compromise every doctor. These $150 obstetrical fees, these $300 to $500 simple abdominal operation fees and these $1,000 to $1,500 other fees are simply hold-up charges and represent demands for payment far in excess of the service rendered. Anesthetic fees of $50 to $100 and mastoid operation fees of $300 to $1,000 are absolutely unjust and unreasonable. Men who are charging such fees had better come to before they encounter the public's revolt." That was the

expression of a man in whose judgment we all have confidence and whose ability is unquestioned. That gives food for further thought. We want you to think, we want you to live and we all want reasonable remuneration, but let it be obtained without gouging. Well, think it over, and tell us what we had better do and how we can best solve the problem. These columns are open for your views.

As an additional measure for the protection of the community from venereal infection the Eighty-Second Legislature of the State of Maine passed an amendment whereby superintendents of State, county, and municipal charitable or correctional institutions are required to report to the State Department of Public Health any inmate about to be released and who is afflicted with a venereal disease in an infectious form. The report is to be made not later than fourteen days before the estimated date of release, so that the State Department of Public Health may "take necessary measures to protect others from such infection."

It has been generally accepted by the various states, says the U. S. Public Health Service, that provision should be made for the medical examination, care and treatment of venereally afflicted inmates of state institutions, and that such examination, care and treatment are usually provided. The Maine amendment, requiring the report of infectious cases before their release, is a significant venereal disease control masure.

The Massachusetts Department of Public Health is contemplating new regulations whereby venereal diseases will no longer be reported directly to this department, but hrough the local boards of health, a practice adhered to in most states and found highly satisfactory. This has been made possible by a recent act of the Massachusetts Legislature giving the State Department of Public Heauth authority to make special rules and regulations for reporting venereal disease cases. The already existing health laws did not specifically delegate such authority to the Department of Public Health, so this act removes any legal doubt as to the right of the health authorities to provide special regulations for the control of syphilis and gonorrhea, The aim of such regulations in Massachusetts and other states, says the U. S. Public Health service, is to prevent the spread of venereal diseases in the community.

POST GRADUATE CONFERENCE

The Post-Graduate Medical Conference held in Sault Ste. Marie, July 10-25, was highly successful from every standpoint. Deviating somewhat from the usual "scientific papers" to the practical talks on various problems in Medicine, made the program more interesting and of practical value. Every member of the local society were highly enthusiastic, both on the arrangement of the program, and the excellent manner in which each number was presented.

Harvey George Smith first outlined briefly the purpose of these conferences and the readiness of the State Society, to co-operate with the County Societies in any manner for their betterment.

Dr. Phil Marsh, of Ann Arbor, speaking on physical examinations and later on diabetes, gave two excellent talks both of which were well received.

Of equal interest were the talks by Dr. M. A. Mortensen of Battle Creek, who spoke first on "Interpretation of Physical Examination of the Heart." His talk later, on "Hypertension," bringing out some new ideas as to its cause, was of unusual interest.

The paper on "Appendicitis in Children," by Dr. G. Van Amber Brown, of Detroit, was very good, giving symptoms and pathology usually found, and emphasizing the difference in anatomy, necessity of early operation, and some points in the location of the incision in pus cases.

The talk by Dr. Homer T. Clay, of Grand Rapids, on "Feeding the Normal Infant and on Problems in Infant Feeding," were very "clean cut" and straight to the point. His outline of these problems were very practical and contained many ideas that will help every practitioner in managing these cases.

Dr. George H. Ramsey, speaking on "Toxins and Antitoxines," and finishing on the present status of scarlet fever and the different serums now being worked out, gave a very practical view of the latest information on this subject.

The entire program was very good. We were sorry that time would not permit the one number of Dr. Brown on the "Kidney of the Child."

We wish to congratulate the State Medical Society and each physician on the program, on this excellent meeting.

In the past few weeks the papers have sensationally been imparting the news regarding an alleged discovery as to the cause of cancer. The London announcement of a type of bacteria stated to have been found in cancerous tissue by means of the ultramicroscope is the occasion of a rather premature statement of a fact that is as yet unproven. The public has been lead to believe that at last the cause of cancer has been determined and that with the cause being known a cure will be speedily forthcoming. This is regretable for it is raising many false hopes and while every member of the profession will gladly hail the day when we really are sure as to the etiology of cancer it is incumbent upon us to appraise the present announcement as premature and not yet tenable. In commenting further upon the subject we can do no better than to reprint the editorial that appeared in a recent issue of The Journal of the A. M. A., and which is as follows:

"The newspaper sensation of the current week, aside from the attempt to prevent by legal trial in Dayton, Tenn., the extension of knowledge regarding evolution, has been the announcement that certain British investigators have discovered an ultramicroscopic organism in association with experimental tumors in animals. During the last twenty years, numerous investigators have reported the finding of various bacterial organisms, both those visible under the microscope and the so-called ultramicroscopic variety in association with human cancer. None of the organisms thus far found that have been alleged to be the specific cause of the disease have been confirmed as the actual cause. Indeed, the majority of investigators who are devoting themselves particularly to studies of the cause of cancer believe that the disease is not caused primarily by a bacterial organism, but that it is the result of other factors, chemical or physical or related to some specific substance within the human cell, not yet determined. At the same time, it seems reasonable to believe that bacterial organisms of various kinds may find cancer tissue a suitable place for their growth within the human body, and may thus modify in various

ways the growth and development of the cancer. Some years ago, Peyton Rous, of the Rockefeller Institute, described an ultramicroscopic organism or filtrable virus associated with certain experimental tumors in chickens. Recent studies indicate that this organism may be of the type of the much discussed "bacteriophage." Evidently the British investigators have pursued somewhat farther the work of Peyton Rous with this form of tumor, and their report is to some extent a confirmation of his investigations. It will be a considerable step to find the relationship of such an organism to cancer as it occurs in man and obviously the next procedure will be to determine whether any such relationship exists. Obviously, also, the present series of experiments, while of great interest from a research point of view, has no immediate bearing on either the prevention or the cure of human cancer."

County Secretaries are urged to impress upon their delegates the need of being present at all the sessions of the House of Delegates. Furthermore thy are urged to participate in the deliberations and aid in formulating policies. The sessions of the House have been arranged so as not to interfere with the scientific program.

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Among Our Letters

NOTE.—*This department is the open forum of our members. Your communications and discussions are welcomed. Anonymous communications cannot be accepted, though at times names may be omitted by the Editor. Personalities will not be printed and responsibility for opinions is not assumed. We invite your interest in this department. Address: The Editor, Journal, Michigan State Medical Society, Powers Theatre Bldg., Grand Rapids, Mich.*

DARWINISM EVOLUTION DRIFTWOOD OF NINETEENTH CENTURY

Editor of The Journal:

It is curious how educational driftwood from the 19th century, driftwood that was cast aside, thrown into the stream of public education in the past century as drift or culls, has been rescued from oblivion by some educators in the 20th century. Our educational, political, and social laws are very broad in our country, impose no barriers on freedom of speech, choice in educational methods, and religious worship. They come from the people, they are made by representatives in our state legislature and congress. Each state has a right to pass any of the above laws as long as they do not conflict with the written laws of our general government. (See U. S. Constitution and Amendments to same.)

The educational laws of any state are the property of the state and they can change them, or place safeguards, introduce any form of instructing if it does not teach disloyalty or immorality. States also have the right to reject, silence and ignore, instruction from a disciple of Charles Darwin. Some of his following in America have tried in the past to excite the public, mold public opinion so as to start a school or get into our public schools this piece of educational driftwood that was rejected both by the church and scientific schools of Europe and America in the 19th century.

Did any of the modern disciples of Darwin read his last works or books or any biographical account of his life and lifework? These accounts are admission of failure. Darwin frankly admits that he never proved by experiment and theory that our ancestors were monkeys and he also admitted he never found the missing link to connect the monkey tribe with man. Did anthropologists or biologists ever accept his theory? No, they regard his as an iconoclast and did not want their works mixed up with the "Descent of Man."

The above paragraph shows that Darwin was an iconoclast in science or one who tore down, but never could build up and his ruined structure was thrown or cast out and drifted—some fragments—into the 20th century. Some of his followers, who ignore his failures or advice or counsel given in sorrow and humiliation, try to influence or force it upon the public and into the public schools. This is done in the spirit of advertising, so as to be a great hero or martyr or for money to pay costs of legal advice.

Do any of the teachers, preachers, lawyers or doctors find anything in Darwin's inconoclastic theory that has any place in Christian civilization? A civilization that is founded on the birth of the greatest teacher, preacher, lawyer and doctor that ever lived.

In the past few years Darwinists have been very busy in schools, church, law and medicine, trying to tear down the elements of a Christian civilization and make the general public believe that freedom of speech, free instruction and free church worship gave them the right to destroy and make driftwood of anything we have and one's forebears have built up in 2,000 years. Are we or our nation going to be ruled and our children taught by iconoclasts in religion, instruction, etc.?

Senator LaFollette was buried last week. He was the greatest political and governmental iconoclast this country ever had. All his public life was spent in telling how his tearing down would benefit his state, but never a word how it could be built up. He left building up to voters and socialistic friends. Have the governor and mayors of the state of Wisconsin given the people good government? Latest reports have been full of complaints of LaFollette's people's government.

Robert Ingersoll was in the 19th century the greatest iconoclast in law, morals, and religion. Did his "Mistakes of Moses" ever gain recognition or respect in courts or among lawyers? No, they never did.

Is there a true evolution? There is and it has its greatest men and greatest progress here in the United States. We don't have to adopt any Darwinism, LaFolletteism, or Ingersollism to get results. We don't have to accept any of the worn out socialism of Europe or the monkey descent of man to govern us or educate our children. Some nations might say we are too independent. We are as regards the making our our beautiful land and the dumping ground of physical and mental wrecks for Europe and other countries.

The true evolutionists are Burbank, Gray, John Burroughs, John Muir; breeders of cattle, hogs, and other domestic animals, great chemists, educators, ministers, who have carried the message to their people of how the Great Teacher taught and gave them hope that they would be rewarded, not because their ancestors wsa a monkey, but because he was a man created or made in like manner unto himself.

Human nature never changes. All our civilization and advance methods do not eradicate feeble mindedness or superstitious fear in a small percentage of the human race. This is smaller in each succeeding generation, but is never eliminated. These superstitious and abnormal minded ones are always in the ranks of the radicals or pseudo reformers. They are always ready to complain of the cruelty of social, governmental and educational always that prevent pseudo evolutionists, pseudo socialists, or pseudo hypnotists from being broadcasted over our fair land.

True evolution as taught by American and European evolutionists who confine their efforts in botany and anthropology to build up a new variety or species on their own class by cross pollen fertilization or selection of types and careful breeding are true instructors and their results show some of the laws and wisdom of the Great Creator.

PROMISED PROTECTION AT EVOLUTION TRIAL

From a clipping from the Detroit Free Press (By Associated Press) we are informed that A. P. Hazzard, chairman of the City Commission, has promised protection to the principal speakers in the Scopes evolution trial at Dayton, Tenn. Why does the ruler of the city do this? Because one of the defense speakers is Prof. Albert Einstein with his theory of relativity, i. e.; human race is relative to the monkey, and he doesen't want to be muzzled in proclaiming this relation to an intelligent American audience and for fear they might have some remains of that old pro-German war feeling, he wants protection. Further, he pleads that his remarks would not be interfering with the American "family squabble." This is not an American "family squabble." It is an organized effort on the part of the supporters of Christian civilization all over the world to prevent false evolutionists, iconoclasts, from destroying all progress made in the past 2,000 years under the Christian civilization.

We realize the American "family squabble" is insulting to us and the whole world as ruled today. He further says, "any restriction of academic liberty heaps coals of shame upon the community which tolerates such suppression." We know the academic liberty was not granted the professor in Germany under the Kaiser's rule or protection when he gave his Darwinian Evolution and Darwin missing link of relativity. His insulting remark of "heaping coals of shame on the community" will never get him much protection or liberty in Dayton, Tenn.

He further says, "the exact sciences may call the whole world their fatherland." Are the failures of Darwin and exact science any help to true evolution and progress? No.

He further says, "other German scientists and theologians are eagerly following 'communiques' from the American educational battlefield. This word communique reveals something our government is trying to suppress; i. e.; communiques of Bolshevism and pseudo socialistic propaganda in America. It has no recognition in true scientific, political and religious life.

Professor Seeberg, in his defense, says, "Darwinism in the original form is a thoroughly stimulating scientific theory." The professor does not explain how Darwin's failures had any stimulating effect on the true experiments made by scientists working colleges and universities, not in communes for socialists, revolutionists and anarchists.

Count Johann Von Bernstoff, another one who is going to defend pseudo evolution, says, "I am absolutely opposed to any restriction of academic teaching and to all persecution in connection with the teaching of established facts." The theory of evolution is well supported by all our knowledge and to ignore it would be to show the intelligence of an ostrich. "It is a theory which has no connection with religion." Count Von Bernstoff, by making this statement has "shown the intelligence of an ostrich," insulted the whole civilized world which does not want to acknowledge their ancestors came from monkeys and even the intelligent ostrich would never recognize a monkey ancestor.

CONCLUSION

Count Johann Von Bernstoff, Albert Einstein, and Professor Seeberg were together at Washington when the count was German ambassador. His anarchistic, revolutionary propaganda while at Washington, compelled President Wilson to ask Kaiser William to recall this group who were traitors to the Imperial Government of Germany and anarchistic to our government.

People of the United States, through the Department of Justice, will prevent him and his group from assisting Professor Scope in defense of pseudo evolution, but will also give this group and Professor Scope free transportation so they can go to Europe and spread the "glad tidings" in some anarchistic, socialistic commune in Russia or Germany.

Dr. F. N. Turner.

INSANITY AS AN EXCUSE FOR MURDER

Editor of The Journal:

The common people have been incensed and the ignorant among the laity have defeated justice by using mob law in order to have criminals punished. It is talked about on our streets how the wealthy criminal is sent to an asylum and his partner, from lack of funds, sent to the electric chair. Expensive lawyers have been hired by red handed gunmen and remained in this world; cheap lawyers have been hired by criminals and they have seen the other world. We are progressing. Juries are no longer swayed by money or eloquence of expensive counsel. Defending a murder by creating a sympathy for him is not a guarantee for future safety to the public. Even insanity or abnormality does not instigate his sentence. Insanity and abnormality is too common an excuse as all criminals are abnormal and gunmen are insane. All practitioners of medicine have heard the cry, "Doctor, save my life" from disease and the executioner's hands. Doctor most always tells the truth to patient or his relatives and friends. Doctors don't make criminal laws which are used to define rights of property or taking human life in defending murder. Insanity laws were framed by lawyers, not doctors. Why blame doctors when justice miscarries through application of laws made by lawyers? Alienists are blamed for death or death sentence. Criminal laws define pleas for

THE SCIENTIFIC PROGRAM AT MUSKEGON WILL BE ENTIRELY CLINICAL

insanity an excuse for criminal responsibility, a crude makeshift to escape punishment. A doctor's testimony sometimes is only an occasion for some opposing lawyer to exercise all his oratory or eloquence to break down before a jury who knows less than nothing about insanity or workings of the human mind. The judge who sentenced the young murderers, Loeb and Leopold, said, "plea of insanity or abnormality must be shown, clearly shown as motive to place and bring about murder in first degree." In an insane or abnormal mind the normal functioning power or motive is lost, so entirely lost that patient cannot perform the simplest things in regard to his or her own personal habits, i. e., cleanliness, providing food, etc.

Our marriage laws have been changed so that doctors and health boards can prevent disease or immorality being broadcasted over our land. Expect when our new criminal code is framed that our brothers in legal profession will be kind enough to ask doctors and alienists to insert something or some facts in regard to how insane and abnormal criminals shall be tried and sentenced.

Dr. F. N. Turner.

Michigan State Medical Society,
Grand Rapids, Michigan.

My Dear Doctor: Dr. John B. Deaver of Philadelphia, Univresity of Pennsylvania, was invited by the Board of Education of the City of Detroit to address the graduating class in Medicine at the June graduation. He also gave a Surgical Clinic to the Alumni Association of the Detroit College of Medicine and Surgery.

Enclosed find copy of the resolution passed by the Board of Education of the City of Detroit, extending to Dr. Deaver, by the Secretary of the Board. This Resolution to be published in the official bulletin of the Board of Education.

Yours very truly,

Angus McLean, M. D.

Professor John B. Deaver,
University of Pennsylvania,
Philadelphia, Pa.

Dear Sir At a meeting: of the Board of Education held July 1st last, a resolution was presented by Angus McLean, President pro tem, which was unanimously adopted by the board, extending to John B. Deaver of the University of Pennsylvania, the sincere thanks and appreciation of the board for your most excellent address and experienced advice to the graduating class of the Detroit College of Medicine and Surgery, also the appreciation and thanks of the Alumni of the college for your most interesting and practical clinic.

Hoping that at some future time we may again be in a position to hear and absorb some of your words of wisdom and results of your years of experience and practical conclusions in the vast field of medicine, I remain,

Yours respectfully,

(Signed) H. L. Reevse,
Assistant Secretary.

Editor of The Journal:

I have read with interest and pleasure your editorial, in the last issue of the Journal, on "Standards Applied to Professional Education and Hospital Requirements." Your analysis of the subject seems to be a very clear and understandable presentation of the popular mental bent in respect to the use of sumptuary methods in the direction of human affairs.

Everything being subordinated to the mental aberration of the callow reformers. Even down in Tennessee they are at present engaged in the very doubtful occupation of determining the origin of man.

I trust your effort in behalf of things medical may be rewarded with at least careful consideration by the readers of the State Medical Journal.

Sincerely yours,

C. C. Clancy.

Editor of The Journal:

I am in receipt of your courteous letter of recent date, apprising me of my suspension for nonpayment of dues in, (I suppose), the Michigan State Medical Society.

So far as I know the Cheboygan Medical Society, where I naturally belong, has not functioned since "Hector was a pup", it has been deader than a mackerel for a long, long time, holds no meetings, and if it has any officers they certainly fail to get busy.

With a non-existent County Medical Society one's enthusiasm for things medical isn't apt to bubble over, and so I have let matters slide—I am not actively engaged in the practice of medicine, but I offer you the above merely that you may not believe me a slacker and a "jay" who does not value a live and energetic organization of physicians, nor one who would fail to answer a letter as courteously phrased as is yours.

With my very kind regards and best wishes,

Sincerely yours,

W. G. Rice.

Editor of The Journal:

Enclosed are two reports which strike me as being of more than passing interest to you. They are reports of our Miss Laura Bauch, who as you know, is in charge of our clinic organization work. We are rather priding ourselves on the fact that we have pretty well gotten away from the distrust in which tuberculosis clinics may or may not have been held at one time by physicians. In fact, the co-operation where we have been so far, from medical men has been so hearty and thorough-going that I have wondered whether there would not be some news value in our clinic information for the State Medical Journal. If there seems to you to be anything of value in the suggestion I should be pleased to have a very brief notation prepared for you in the form of a report at any intervals for which you might wish to grant space.

The report sheet on which is given the number of positive and suspicious cases examined and the stage of the disease at which the new cases were found strikes me as being of special value.

I am sure that I need not repeat to you that it is the sincere desire of the Michigan Tuberculosis Association to be of service to the medical profession of the state. Such an attitude on our part rests on many obligations we owe medical men, but particularly on the fact that the tuberculosis movement of this state and the country at large is deeply indebted to medical men for its inspiration and guidance.

Yours very sincerely,

Theo. J. Werle, Executive Secretary,
Michigan Tuberculosis Association.

Clinics held in Luce, Mackinac, Chippewa and Emmet Counties.

Keen interest in the clinics, especially in the matter of follow-up work was manifested in this part of the state.

In Emmet County the attendance was so large that it was impossible to examine all the patients referred to the clinic by local physicians, hence it was arranged that we hold another one day clinic on our return from the north. This clinic was lengthened to one and a half days and then not all were examined.

Through the co-operation of several girls clubs, a fund was raised to send two children to a Fresh Air camp. The local Tuberculosis committee will arrange for their own summer camp for next year. They have asked me to schedule a clinic for May, 1926.

An effort will be made to secure a county nurse.

In Chippewa County the court room was crowded with applicants before ten o'clock. We decided to remain for two days. Unfortunately, the effort to secure two physicians for the second day was unsuccessful. Some patients wept when they feared they would not be examined. Some came on the train from rural sections, and not having received an examination the first day, returned again on the second day.

By the high percentage of positive findings you will see that the physicians time was well spent.

Mackinac County, too, is most eager to have a County Nurse.

These three counties, Luce, Mackinac and Chippewa are interested in building a sanitarium.

Several of the physicians expressed an interest in a Tuberculosis conference somewhat like the one held in Berrien County.

Month	Number of Doctors Clinic Days	Number Examined	Total Positive And Suspicious Cases	Total	New Cases Far Advanced	Moderate Advanced
January	6	154	51	31	2	12
February	10	219	78	48	4	7
March	5	168	57	33		10
April	6	186	84	43		16
May	9	269	115	70		17
June	9½	217	107	79	3	30
	45½%	1213	492	304	9	92

Miss Laura Bauch.

Editor of The Journal:

I just received your letter today expressing that I have been placed on the suspended list for 1925 for non-payment of dues. On looking up the matter of the record of the Lapeer County Society, I find that it was paid March 1, 1925 at our first meeting of this year and there is a notation on the receipt under your signature that the A. M. A. had been notified.

You are correct in your circular letter that you cannot believe that I cannot permit my membership to lapse. I think it has been continuous for about twenty-five years and will be until the end. I am greatly enjoying The Journal and the activities of the Society. I do not think there ever was a time in the history of the Society when the council and the other officials of the State Society were making as positive an effort for progress as at the present time.

I was very much surprised to receive a telephone message from Doctor Ward Seely that his father, our friend of many years, was dead. I presume that you have heard it. Two weeks before his death he spent Sunday with me and we reviewed all the old times and the many long visits we had at the State Medical Meeting, and he was the same Doctor Seeley, always for what was for the best interest of the medical profession. He was keenly alive to all that was going on just as much interested in it as when he was actively engaged in the official work. He was a good physician, a good fellow and no one served the profession more whole heartedly than did Dr. Seeley. I am sure that those of us who were closely associated with him for the long time that he was on the Council will feel a great personal loss in his death.

If you do not find the records correct, I will look it up further. I am not one who thinks he pays too much to the Medical Society, but rather that I get an awful lot for what little I pay, much more that I get for any other $10 that I let loose of.

With kind personal regards,

Very respectfully,

W. J. Kay, Medical Superintendent.

State News Notes

Doctors Leon and Robert Cowen have removed their offices from the Charlevoix to 1706 Stroh Building, Detroit.

Dr. and Mrs. J. E. G. Waddington of Detroit are spending two months abroad. The doctor is visiting the Physiotherapy Clinics.

Dr. L. L. Willoughby and family of Richfield Road, are touring Canada during the month of July.

Dr. J. Nagle, of the Department of Health, Flint, Michigan, will leave in the early fall to take up practice at Wyandotte, Michigan.

Dr. J. Curtin, formerly of the Flint Board of Health, has opened offices at Leith and St. Johns streets.

Doctors F. Johnson, I. Jutor, E. Harelik, U. of M. Medical Department, 1925, have been accepted as internes at Hurley Hospital for the ensuing year, with Dr. J. H. Curhan, Tufts Medical School, acting as Chief Resident.

Dr. L. W. Brown, Medical Examiner, Pennsylvania Railroad, Grand Rapids, accompanied by Mrs. Brown, will leave on vacation July 12th. They expect to visit Detroit, Cleveland, New York, Philadelphia, Atlantic City and Washington, with trips down the Hudson and Potomac rivers.

Dr. and Mrs. Claire L. Straith have returned from Paris, France, where Dr. Straith has been attending the International Plastic Surgery Clinic. Mrs. Straith was hostess at a dinner given in honor of surgeons attending the clinic, on the eve of their departure.

Hurley Hospital is having a 50-bed addition to the hospital, made possible by the utilization of the old nurses home, which adjoins the hospital and which can conveniently be remodeled for hospital purposes. The new addition is to be used for the medical wards of the hospital, and in it will be

housed women's and men's medical and pediatrics department. This gives the hospital a total capacity of 175 beds. The new nurses home which is one of the finest in the country is in successful operation.

The American Electrotherapeutic Association will hold its 35the Annual Session September 15th to 18th, at the Hotel Drake, Chicago, Ill. Papers will be read by the leading men in the field of physical therapeutics and by invited guests of national reputation. A demonstration of actual technic of application of the various physical modalities will be given. There will be a complete exhibit of the latest electrotherapeutic apparatus and accessories. All legally licensed physicians are welcome and detailed program can be obtained by addressing Dr. Richard Kovacs, Secretary, 223 East 68th Street, New York City.

An examination was held by the American Board of Otolaryngology on May 26, 1925 at the Medico-Chirurgical Hospital, Philadelphia, with the following result:

Passed	137
Failed	20
Total Examined	157

The next examination will be held at the University of Illionis School of Medicine on October 19, 1925. Applications may be secured from the Secretary, Dr. H. W. Loeb, 1402 South Grand Boulevard, St. Louis, Missouri.

The new plant of the Abbott Laboratories, and now nearly ready, will be, when occupied, the finest complete pharmaceutical and research plant in the world. Here the newest synthetic, medicinal chemicals are made in large quantities by improved processes, insuring purity and accuracy. Here also are extracted from the crude drugs the medicinal principles used largely throughout the pharmaceutical industry as well as by the medical profession.

Larger quarters will be provided for the extensive research work now being carried on by a large staff of chemists and new buildings are being provided for the manufacture of the well-known Abbott pharmaceutical specialties.

The administrative office of The Abbott Laboratories, located for many years in Ravenswood, will be moved about October 1st of this year to the new plant. The postoffice address will be Waukegan, Ill., 25 miles north of Chicago on the C. & N. W. R. R. About 24 acres of ground are owned by the Abbott Company to provide for the future expansion of their business.

Our Society Business and Activities

HARVEY GEORGE SMITH

EXECUTIVE SECRETARY

NOTE: This Department will each month contain a discussion and report of our Society work and planned activities. Your interest and correspondence as to your problems is solicited.

THE MINIMUM PROGRAM IN ACTION

Is the practice of the science of medicine in Michigan taking another forward step? In the last issue of the Journal under the title, "A Minimum Program for County Medical Societies," a plan was presented which intends that every County Medical Society in Michigan should give major consideration to physical examinations, first for all members of the Societies, and second, to secure, through each member, five physical examinations of laymen. In the Wayne County Medical Society Bulletin in the June 29 issue appeared the following editorial, which shows that the doctors of Wayne County are already taking their physical examinations:

A HEALTH EXAMINATION FOR ALL OF US

The time to begin doing Periodic Health Examinations routinely is at hand, and with it comes the necessity of our becoming thoroughly acquainted with this branch of medical practice. It is perfectly obvious that in order to give this work its proper send-off, the members of the profession must themselves be thoroughly sold on the subject so that they will at least be practicing their preachments.

There is therefore no better means for accomplishing this than for all doctors to submit themselves at least at yearly intervals, to a thorough physical examination. The general public can not help but become favorably impressed by such a procedure. Accordingly, in a very short time there will be sent to every member of the Wayne County Medical Society, examination blanks with instructions for their use, so that the opportunity for the initial Periodic Health Examination will be afforded everyone.

If you are interested in your work, which you undoubtedly are, and if you are anxious to serve your clientele in the best possible manner, you are urged to take a hand in the carrying out of this work.

There are a host of benefits that will accrue to all of us from the consummation of such a plan. You are urged to begin now so that you will not be among the losers.

2 DAYS INTENSIVE POST-GRADUATE INSTRUCTION AT ANNUAL MEETING

At the last meeting of the Marquette-Alger County Medical Society, the physical examination was discussed and plans evolved which would include a physical examination of each member of the Society.

A lay editor, taking notes on the discussions on physical examinations at the Post-Graduate Conference held at Marquette, was thoroughly convinced that the health of a community would be vitally affected by systematic physical examinations. He appeals to the laymen, asking that they give their doctor an opportunity to do justice to them and to the science of medicine. The article, which is as follows, appeared in the Daily Mining Journal:

THOROUGH EXAMINATION REAL HEALTH FACTOR, SPECIALISTS TELL MEDICS IN CONFERENCE

(By Manthei Howe)

Next time you have been feeling badly for some time and consult a physician, do not expect him to give snap-shot judgment. It is not being done in these days of the practice of scientific medicine.

If your doctor is not willing to prescribe in a jiffy in order to allow you to get to the first movie or catch the next street car, you will be wise to accept his decision. He is not trying to sting you for an extra office call. He wants to give you real service.

EXAMINATION IMPORTANT

Dr. Phil L. Marsh of Ann Arbor, speaker at the Post-Graduate Conference of the State Medical Society, held here yesterday, stressed the importance of a routine examination of every patient whose case is at all obscure. For it is only by a careful inspection of eyes, ears, nose, throat, (even good thoroughbred animals are subjected to such examination) and a thorough neurological examination that the doctor is able to discover the presence of obscure cases of masked diseases.

So if the doctor asks you to close your eyes and walk in a straight line, or if he gives you a whack on your shin-bone just below the knee and makes your foot whizz up into the air, or if he tickles the sole of your foot, everything is perfectly all right and according to the best medical practices.

The doctor is just testing your reflexes and they are important enough to take plenty of time for the test, for they are the indicators of your nervous system.

MUST HAVE CORRECT DATA

Dr. Marsh said, and every practicing physician will agree with him, that most mistakes of diagnosis are due to a lack of data, or detailed information on the case. So take an extra 15 minutes or an hour, if your physician says so.

And if you are not willing to take Dr. Marsh's opinion, along comes Dr. M. A. Mortenson of Battle Creek, who, in his talk yesterday on heart disease and the examination of the heart, urged that, when heart disease was suspected, the patient be made to strip to the waist for physical examination.

Maybe you did not know it, but just taking the pulse is not enough to diagnose heart disease.

You know, too, the cute little disc on the end of a rubber tube that doctors carry around in a case or haul out of an inside pocket. It is impressively called a stethescope. It is needed, all right, according to Dr. Mortenson, but more than just that, the physician needs to examine the abdomen to find if there are signs of congestion that indicate heart disease.

DIAGNOSIS THE THING

Examine your tummy to find out about your pump! Can you beat the idea? Yet it is scientifically correct and yesterday's conference was designed to bring to the laity just such information. It is hoped to make every one realize that cure depends on correct diagnosis and that the diagnosis depends on a careful, thoroughgoing examination. The doctor will do his part, if the patient is willing to give some time to the necessary examination to acquire the data that will go to make up a scientifically accurate case history.

It looks fussy, but it's worth while.

The evidence in the case, physical examinations, clearly indicates that the public is waiting for the science of medicine to present its program. It is waiting for the word to come through the family physician, spend the hour as appointed, and secure a complete, careful examination. No longer is it willing to take the five-minute interview, a few pills, or a prescription to the drug store. The demand is being made for more service and more and better health. Are County Medical Societies and practicing physicians ready to fulfill the demand of the public and prepared to advance the science of medicine?

THE NORTHERN PENINSULA CONFERENCES

The physicians and laymen of the Northern Peninsula of Michigan proved themselves enthusiasts for the new program of the Michigan State Medical Society and the Post-Graduate Conferences. More than one hundred members attended the four conferences held at Escanaba, Marquette, Houghton and the Soo on July 7, 8, 9 and 10 respectively. The laymen took advantage of the conferences by inviting either the speakers as a group, or all the physicians of the conferences to meet with them at a Rotarian, a Kiwanis or a Lions luncheon. More than one hundred laymen, representing the important business and professional activities of Escanaba, Marquette and Houghton, attended the luncheon meetings.

The keynote of the conferences from the first to the last was co-operation. The County Medical Societies and the officers were ready to do their part to make the programs a success. The laymen were glad to have an opportunity to meet with medical men on a common basis of fellowship and friendship in the interest of a better community, more health, more enjoyment and greater achievement. The editors of all newspapers of the conference cities saw to it that special reporters wrote the story of the medical meetings. The editors are aware of the demand of the public for more information on the science of medicine and what it can do for each and every community, city or village, when thoroughly understood.

The programs presented at each conference were directed to help the physicians themselves.

NATIONALLY KNOWN SPEAKERS ON ANNUAL PROGRAM AT MUSKEGON

The lectures were a surprise to many of the members of the societies of the Northern Peninsula. They were looking forward to listening to long scientific papers that had little direct value to the man in practice. All were delightfully surprised. The unanimous opinion of all physicians of all the conferences was that at no time had they attended scientific meetings where they received so much information of direct practical value in the practice of their profession. "We came as skeptics and departed advocates for the Post-Graduate Conference," was heard at each meeting.

That the laymen everywhere are becoming interested in the science of medicine, what it really is, how it is related to the health of each individual, how it affects business and happiness of communities, was clearly demonstrated by the members of the noonday luncheon clubs of Escanaba, Marquette and Houghton. "We are interested in the facts of scientific medicine and the periodic health examination, but we have lacked information," was a statement heard at each of the conferences. Dr. G. VanAmber Brown, Dr. M. A. Mortenson and Harvey George Smith gave short talks at each of the luncheons.

The program that was presented at each of the conferences is as follows:

MICHIGAN STATE MEDICAL SOCIETY

POST-GRADUATE CONFERENCES

Escanaba, July 7th; Marquette, July 8th; Houghton, July 9th; Soo, July 10th.

PROGRAM

10:30—Opening Statements.
Richard Burke, M. D., Councilor, Chairman.
Harvey George Smith, Executive Secretary.
10:45—Physical Examinations.
Phil Marsh, M. D., Ann Arbor.
11:20—Interpretation of Physical Examination of the Heart.
M. A. Mortenson, M. D., Battle Creek.
12:00—Luncheon.
1:30—Appendicitis in Children.
G. Van Amber Brown, M. D., Detroit.
2:00—Feeding the Normal Infant.
Homer T. Clay, M. D., Grand Rapids.
2:35—Diabetes.
Phil L. Marsh, M. D., Ann Arbor.
3:10—Toxins and Antitoxins.
George H. Ramsey, M. D., Lansing.
3:50—Intermission.
4:00—The Kidney of the Child.
G. Van Amber Brown, M. D., Detroit.
4:35—Problems in Infant Feeding.
Homer T. Clay, M. D., Grand Rapids.
5:10—Hypertension.
M. A. Mortenson, M. D., Battle Creek.
6:00—Dinner.

The doctors attending the four conferences are listed below:

ESCANABA CONFERENCE

A. R. Tucker, M. D., Manistique.
W. K. Wright, M. D., Manistique.
K. C. Kerwell, M. D., Stephenson.
D. R. Lansdborough, M. D., Daggett.
H. A. Vennema, M. D., Menominee.
Louis P. Groos, M. D., Escanaba.
T. J. Hutton, M. D., Powers.
Charles L. Girard, M. D., Spalding.
R. E. L. Gibson, M. D., Newberry.
Nancy Rodger Chenoweth, M. D., Escanaba.
Stephen C. Mason, M. D., Menominee.
J. W. Towey, M. D., Powers.
A. Harvey Miller, M. D., Gladstone.
Norman S. Campbell, M. D., Bark River.
J. K. Parish, M. D., Hermansville.
G. W. Moll, M. D., Escanaba.
John J. Walch, M. D., Escanaba.

MARQUETTE CONFERENCE

R. A. Burke, M. D., Palmer.
I. Sicotte, M. D., Michigamme.
Paul Van Riper, M. D., Champion.
Jacob Talso, M. D., Ishpeming.
H. W. Sheldon, M. D., Negaunee.
C. N. Bottum, M. D., Marquette.
W. A. Mudge, M. D., Negaunee.
H. A. Hornbogen, M D., Marquette.
C. E. Rowe, M. D., Hubbell.
W. A. Manthei, M. D., Lake Linden.
A. K. Bennett, M. D., Marquette.
J. Bellas, M. D., Marquette.
W. J. Saunders, M. D., Manistique.
Theo. A. Felch, M. D., Ishpeming.
Frank O. Paull, M. D., Marquette.
W. J. Hewson, M. D., Negaunee.
William B. Lunn, M. D., Marquette.
H. H. Loveland, M. D., Republic.
W. L. Casler, M. D., Marquette.
Harold B. Markham, M. D., Marquette.
F. Mc. D. Harkin, M. D., Marquette.
R. B. Harkness, M. D., Houghton.
Arthur F. Fischer, M. D., Hancock.
Russell L. Finch, M. D., Marquette.
F. W. Scholtes, M. D., Munising.
George J. Korby, M. D., Detroit.
Alfred D. Biggs, M. D., Big Bay.
L. W. Howe, M. D., Marquette.
James H. Dawson, M. D., Marquette.
John T. Kaye, M. D., Menominee.

HOUGHTON CONFERENCE

Thomas P. Wickliffe, M. D., Lake Linden.
William K. West, M. D., Painesdale.
William P. Scott, M. D., Houghton.
John S. Nitterauer, M. D., Ontonagon.
William H. Ellis, M. D., Hancock.
Charles F. Whiteshield, M. D., Trout Creek.
W. A. Von Zellen, M. D., L'Anse.
J. C. Abrams, M. D., Calumet.
A. D. Aldrich, M. D., Houghton.
Wyllys A. Manthel, M. D., Lake Linden.
G. D. Stern, M. D., Houghton.
Ora M. Mills, M. D., Houghton.
W. H. Dodge, M. D., Hancock.
G. C. Stewart, M. D., Hancock.
Alfred La Bine, M. D., Houghton.
K. C. Becker, M. D., Mohawk.
H. M. Joy, M. D., Calumet.
G. C. Setwart, M D., Hancock.
Ada J. Wright, Columbus, Ohio.
A. D. Aldrich, M. D., Houghton.
Simon Lewis, M. D.. Houghton.
M. M. Nilsson, M. D., Houghton.
E. A. Bicknell, M. D., Calumet.
C. H. Ruprecht, M. D., Calumet.
William T. S. Gregg, M. D., Calumet.
W. H. Ellis, M. D., Hancock.
C. E. Rowe, M. D., Hubble.
F. W. Nichols, M. D., Mohawk.

DON'T FAIL TO ATTEND THE MUSKEGON ANNUAL MEETING

John W. Moore, M. D., Houghton.
A. C. Roche, M. D., Calumet.
J. B. Quick, M. D., Laurium.
P. H. Wilson, M. D., Chassell.
F. F. Marshall, M. D., L'Anse.
John Bender, M. D., Houghton.

Soo Conference

Robert Bennie, M. D., Sault Ste. Marie.
Clayton Willison, M. D., Sault Ste. Marie.
Festus C. Bandy, M. D., Sault Ste. Marie.
Charles J. Ennis, M. D., Sault Ste. Marie.
George J. Dickison, M. D., Sault Ste. Marie.
Francis H. Husband, M. D., Sault Ste. Marie.
G. A. Conrad, M. D., Sault Ste. Marie.
Ira V. Yale, M. D., Sault Ste. Marie.
Thomas R. Whitmarsh, M. D., Sault Ste. Marie.
Frank J. Moloney, M. D., Sault Ste. Marie.
John J. Griffin, M. D., Sault Ste. Marie.
W. E. Butler, M. D., Sault Ste. Marie.

THE PETOSKEY CONFERENCE

The Post-Graduate Conference at Petoskey revived the fellowship of the physicians of Northwestern Michigan. For more than five years no meeting of the doctors of that region had been held. The conference on June 25 was attended by 31 physicians from 18 cities and villages. Several traveled 125 miles.

That the Post-Graduate Conference was a success was demonstrated by attendance and by the interest of the physicians in the scientific program. In addition to the scientific program, the Rotarians of Petoskey invited the Executive Secretary to lunch with them and be the speaker for the day. Further, the editor of the newspaper, in three articles, gave publicity to the conference, its aims and its value to the physician and to the layman.

At the dinner of the conference a meeting was held of representatives of the various counties and steps were taken to reorganize the medical men of Northern Michigan into a new society. Resolutions were passed, requesting the Council of the Michigan State Medical Society to act favorably upon the recommendations of the meeting. Temporary officers were elected, an executive committee appointed and plans were made to co-operate more actively with the State Society, and with adjoining County Medical Societies so that more progress could be made for the science of medicine in the new organization.

This conference, as all others, contributes to the fact that the physicians are entirely pleased with the new program of the State Society, that each is willing to co-operate for more progress, that the laity is ready to believe the science of medicine as the only means for the protection of the health of every community and that the editors of newspapers are waiting for any opportunity to co-operate in advancing the science of medicine.

The following program was presented:

POST-GRADUATE MEDICAL CONFERENCE

Cushman Hotel, Petoskey, June 25, 1925.

Program

12:00—Noon—Luncheon—Cushman Hotel.
1:30—Intestinal Obstruction.
Chas. E. Boys, M. D., Kalamazoo.
2:00—Discussion.
2:10—Treatment of Eczema and Allied Skin Lesions.
Udo Wile, M. D., Ann Arbor.
2:40—Discussion.
2:50—Intermission.
3:00—Diabetes.
Don Hastings Duffie, M. D., Central Lake.
3:30—Discussion.
3:40—Goiter.
Chas. E. Boys, M. D., Kalamazoo.
4:10—Discussion.
4:20—Modern Treatment of Venereal Infections.
Udo Wile, M. D., Ann Arbor.
5:10—Discussion.
6:00—Dinner—Cushman Hotel.

The following doctors were present at the Petoskey conference:

J. W. Purdy, M. D., Long Rapids.
J. F. Gruber, M. D., Cadillac.
D. A. Cameron, M. D., Alpena
C. G. Clippert, M. D., Grayling.
Claude R. Keyport, M. D., Grayling.
Frederick C. Mayne, M. D., Cheboygan.
W. J. Smith, M. D., Cadillac.
J. F. Doudna, M. D., Lake City.
S. C. Moore. M. D., Cadillac.
B. J. Beuker, M. D., Ellsworth.
Ralph D. Engle, M. D., Petoskey.
Thomas Y. Kimball, M. D., Manton.
Guy C. Conkle, M. D., Boyne City.
Robert B. Armstrong, M. D., Charlevoix.
W. T. Reed, M. D., Cheboygan.
A. J. McKillop, M. D., Wolverine.
Wesley H. Mast, M. D., Petoskey.
C. M. Williams, M. D., Alpena.
Don H. Duffie, M. D., Central Lake.
William H. Parks, M. D., East Jordan.
Harry E. Shaver, M. D., Boyne City.
W. Earle Chapman, M. D., Cheboygan.
P. W. Bloxson, M. D., Cadillac.
William H. Stokes, M. D., Ann Arbor.
J. B. Brown, M. D., Levering.
E. R. Moorman, M. D., Petoskey.
S. E. Neihardt, M. D., South Boardman.
B. H. Van Leuven, M. D., Petoskey.
Dean Burns, M. D., Petoskey.
Gilbert Frank, M. D., Harbor Springs.
A. C. Tiffinay, M. D., Cheboygan.
F. Gillette, M. D., Alanson.

Deaths

Dr. J. F. Slepicka, of Suttons Bay, died in St. Lukes Hospital, Chicago, July 10, aged 48 years.

Dr. Slepicka was for more than twenty years in successful practice in Leelanau County, and one of its most honored and public spirited citizens. He was an active and useful member of the Grand Traverse-Leelanau Medical Society, and highly respected by the entire community.

Burial services were held at his home in Suttons Bay, July 13, at which all the members of his local society were present. Interment in Oakwood Cemetery, Traverse City.

IN MEMORIAM, DR. EANEST W. HAASS

Dr. Haass, one of the ex-presidents of the Wayne County Medical Society, died at his home Friday, July 10, 1925, following an operation performed two weeks before at Harper Hospital. He was born in Detroit in 1871 and spent his entire life in his native city. His family was a prominent one amongst the German families who came here about the middle of the last century.

Dr. Haass received his medical training at the university of Michigan, graduating there in 1892 and continuing his studies in Europe in the clinics of Berlin and Vienna for two more years. Returning to this country in 1894, he established a general practice on the east side of the city which he continued to serve faithfully for about fifteen years. In 1910 he gave up his general practice to devote himself to internal medicine which he continued to do until stricken with illness last March in New York City.

He was associated with Harper Hospital in various capacities for many years and for the past five years has been at the head of the Department of Medicine. Frequent European trips served to keep him in touch with medical progress. He served as President of the Detroit Board of Health for a time.

Dr. Haass was a member of the Detroit Athletic Club, the Detroit Golf Club, the Harmonie, the University, and Detroit Yacht Club. He was a member of the Wayne County Medical Society, Michigan State Medical Society, American Medical Association, Detroit Academy of Medicine, Detroit Society for Neurology and Psychiatry, and the American College of Physicians.

Dr. Haass was much loved by a large following of patients and esteemed by his colleagues in the profession. His early demise comes as a shock to all who knew him.

Besides his widow, he is survived by his mother, five brothers and four sisters.

County Society News

IONIA-MONTCALM COUNTY

The last summer meeting of the Ionia-Montcalm Medical Society was held at Hotel Belding, Thursday evening, June 25th, 1925. An excellent dinner was served to 13 members, after which the following program was presented:

Subject—"Anesthesia."

Speaker—Dr. R. Maurits, Grand Rapids, Mich.

The subject was introduced by a brief history of anesthesia and the various drugs used to relieve pain. This was followed by a very practical discussion of the technic of administering the various inhalation anesthetics such as ether, nitrous oxide and ethlene.

Dr. Maruits emphasized the various danger signals and explained in detail the methods of detecting them, also the proper precautions to prevent them. Evidently the doctor believed the old adage, "An ounce of prevention is worth a pound of cure," when it comes to anesthesia.

The technics of spinal anesthesia, the real administering of ether mixtures and drugs, was also most ably discussed. The indications and counter-indications of the various anesthetics were thoroughly discussed.

In closing the talk, Dr. Maurits made a plea for every community where it would be practical to have come one or two doctors devote some special time in becoming trained anesthesists to do this work and not treat the giving on an anesthetic too lightly.

He also explained the importance of every patient having a urine examination before an anesthetic, however minor the surgical work. Proper mention was made of the use of insulin and glucose given extravenously as a buffer, where blood sugar gave the indication. This subject was well received by all present and many requested that the subject be given a place on the program again in the near future.

The second paper of the evening was given by Dr. N. S. Vann on "Urology and It's Relations to the General Practitioner."

This talk was made very practical by the exhibition of skiographs. The importance of cystoscopy and pyelography in the diagnosis, and treatment of bladder and kidney diseases were made in a very clear and concise manner.

A rising vote of thanks was extended Dr. Maurits and Dr. Vann for their valuable discsssions.

F. A. Johnson, M. D.

May meeting of the Ionia-Montcalm Medical Society was held at the Ionia Country Club, May 21st, 1924. An excellent dinner was served at 7 o'clock and was enjoyed by the eighteen members present. After dinner the following program was presented:

Subject—"Modern Obstetrical Anesthesia."

Speaker—Dr. H. S. Collissi, Grand Rapids, Mich.

This subject was presented in a masterly manner and afforded the members of the society a great amount of information.

Dr. Collissi introduced the subject with a history of pain relieving measures in Obstetrics, which was very interesting. The late methods of synergistis analgesia, and anesthesia, was then presented in a clear and concise way, describing each step carefully and making the methods practical for the general practitioner. Many questions were asked and a free discussion was entered into by all the men present.

Subject—"X-ray Diagnosis of Certain Chest Diseases."

Speaker—Dr. V. M. Moore, Grand Rapids, Mich.

Dr. Moore presented many skiographs and gave the society an excellent talk which was well received. This subject created so much interest, as was shown by the questions asked, that we hope to secure the speaker again in the near future for more X-ray information in diagnosis.

A rising vote of thanks was extended Doctors Collissi and Moore for being with us and making the meeting a real success.

F. A. Johnson, M. D.

GENESEE COUNTY

The following is the list of scientific meetings held from April 25, 1925 to Jsne 24, 1925, inclusive, submitted for publication in The Journal.

Genesee County Medical Society met for noon luncheon at Hotel Dresden, April 15th, 1925.

Speaker—Dr. Mac Cracken, Dean of the Detroit College of Medicine.

Subject—"Medicine as it was and as it will be."

Genesee County Medical Society met for noon luncheon at Hotel Dresden, April 29th, 1925.

Speaker—Dr. Carl Eberbach, Instructor in Surgery, U. of M. Hospital.

Subject—"Non-Tuberculous Infections of the Kidney."

Genesee County Medical Society met for noon luncheon at Hotel Dresden, May 13th, 1925.
Speaker—Dr. Schiller, Detroit, Michigan.
Subject—"Bismuth in the Treatment of Syphilis."

Genesee County Medical Society met for noon luncheon at Hotel Dresden, June 24th, 1925.
Speaker—Dr. G. Van Amber Brown, Detroit, Michigan.
Subject—"Appendicitis in Children."
Meetings adjourned for summer.

Genesee County Medical Society met at Hurley Hospital June 10th, 1925. Dr. Varney, Professor of Dermatology, Detroit College of Medicine, conducted a skin clinic. Fifteen cases were presented.

Geo. J. Curry, Secretary.

HOUGHTON COUNTY

In place of its regular monthly meeting the Houghton County Medical Society was favored by having a Post-Graduate Conference which was held in Houghton, July 9th, at the Douglas House.

Owing to the absence of Dr. Richard Burke, Councilor, Dr. I. D. Stern, President of the Houghton County Medical Society, presided. The programs opened with statements by Harvey George Smith, Executive Secretary, who stressed the importance of developing work organization and giving more service to the public. He stated that this was the 16th post-graduate conference which had been held in the state of Michigan.

The first lecture on the program was "Physical Examination," by Dr. Phil Marsh of Ann Arbor. He stressed the importance of a complete diagnosis, also the importance of securing sufficient data and the necessity of routine examination. The next lecture was by Dr. G. Van Amber Brown, Detroit, on "Appendicitis in Children." He took up the mortality which is very high and the anatomy of the abdomen of the child. He also pointed out the importance of the symptoms, pain being the first symptom. He gave reviews of 597 cases, and of these 243 were males, and 117 females, 103 were 12 years or under; pain was the initial symptom in 100 per cent of the cases. Other symptoms were nausea, vomiting, tenderness, rigidity, distention in 15 per cent of the cases. The conclusions which he came to were: 1. Anatomy; 2. High mortality; 3. The importance of early diagnosis; 4. Combined Murphy-Oschner-Alonzo-Crile treatment; 5. Early removal.

The meeting then adjourned to a luncheon which was attended by the Rotary Clubs of Houghton and Hancock and the members of the Houghton County Medical Society.

After luncheon Harvey George Smith addressed the meeting; also Dr. M. A. Mortenson, Battle Creek, and Dr. Frank Curtis of Detroit, who was here conducting the Cripple Children's Clinic under the auspices of the Rotarian Clubs. The program was then resumed.

Dr. M. A. Mortenson next gave a lecture on "Interpretation of Physical Examination of the Heart." He took up the history of the case and the different symptoms—pulse rate, basal-metabolism; he then took up the different diseases of the heart, auricular fibrillation, myocarditis, also the various heart murmurs, heart block, and syphilis of the heart. He stressed the importance of complete examination of the patient, inspection, percussion, and ausculation. He next took up the diagnosis of bacterial endocarditis, and stressed the importance of examination for Petechiae, examining the urine repeatedly.

The next lecture on the program was "Feeding the Normal Infant," by Dr. Homer T. Clay of Grand Rapids. He took up the scheme of feeding, the importance of breast feeding being the most desirable; also the importance of stripping the breast after each feeding, thus increasing the supply of milk. He advised the use of placenta-mammary extract where there was deficiency in the gland. The use of cows milk was considered next best to breast feeding. He then took up the different dilution methods, the amount for each feeding and the hours of feeding. In the use of sugar in the preparation of milk he advised dextro-maltose or Mellin's food. He urged the importance of boiling all milk at least three minutes. He also suggested the use of orange juice after three months of age daily, at six months he advised the beginning of cereal feeding in conjunction with milk feeding; at nine months an increase in cereal and giving a vegetable puree. He also took up the matter of giving cod liver oil especially in children who are inclined to be rachetic.

The next paper on the program was given by Dr. G. Van Amber Brown on "The Kidney of the Child." Dr. Brown took up the different forms of animal life and showed the development of the kidney from the 1. Amoeba, 2. Sponge, 3. Liver-fluke, 4. Round worm, 5. Earth worm, 6. Cray fish, 9. the child. Up to the 8th year the glomeruli are numbered by the thousands, after the 8th year there are four million glomeruli. He next took up the function of the kidney, then the threshold bodies and the non-threshold bodies. He stressed the importance of thorough examination of renal patients. He next gave a report of 300 foetus and stillborn. Out of 80 reported 40 had been studied; in 7 per cent there was a marked pathological change; in 75 per cent there was a marked change; even a 2½ month foetus showed evidences of pathological changes. He next took up the importance of thorough urine examination and also the urea concentration.

Then he took up the three forms of nephritis as follows:

1. Acute nephritis. Symptoms: Malaise, headache, dyspnoea, vomiting, fever, vascular changes, eye changes.

2. Interstitial nephritis. Symptoms: Oedema absent, protein present, chlorides present, urea concentration decreases, tendency to ureamia.

3. Parenchymatous. Symptoms: Oedema present, protein present, chlorides diminish, urea concentration normal, no retention, cardio vascular changes absent, urameia less frequent.

This paper was augmented by some very interesting and instructive charts.

The next paper was on "Toxins and Anti-Toxins," by Dr. Geo. H. Ramsey of Lansing. He took up the preparation of the various toxins and the anti-toxins and especially the Dick toxin and anti-toxin for scarlet fever. According to Dr. Ramsey the scarlet fever anti-toxin has yet to be proven of any definite clinical value.

The next lecture was given by Dr. Homer C. Clay on "Problems in Infant Feeding." He made this talk a continuation of his former lecture on

"Feeding the Normal Infant." This time he took up the problem of constipation both the breast fed and modified milk cases. He also took up the treatment and covered the ground very thoroughly.

Dr. Phil L. Marsh of Ann Arbor gave the next lecture on "Diabetes." Dr. Marsh did not attempt to cover the entire subject of diabetes, but took up the subject of diabetic coma. He stated that after twenty-four hours of coma the patient has a very poor chance. Under the treatment he first took up the mechanism which had caused this coma. This was brought about by combustion of sugar by burning of fat and the defect in the acetone bodies and their inability to burn sugar. He stated that insulin is a very dangerous drug and when given in overdoses the patient dies from lack of sugar; therefore it is necessary to give enough sugar to counter-balance the insulin given. Insulin should be given hypodermatically. As to the dosage there are two methods: 1. Single massive dose; 2. Repeated small doses. This method was preferred by Dr. Marsh. Under the dosage he usually gives 25 or 30 units at intervals of two hours in control. He disregards the initial dose of insulin by beginning with the second dose and gives gram or grams of sugar for grams of insulin given. Under methods of administration, if the patient is able he may swallow the glucose or ordinary cane sugar in lemonade. If he is in too deep coma or vomiting is present it is the safest method to give by the intravenous route; 50 per cent of glucose can be given. Dilute solution intravenously is to be avoided. Glucose can be given by the rectal drip and can be given by the intraperitoneal route. In accessory measures, water should be given in large amounts, hypodermiclysis can be used; a glass of water every half hour can be given. This should be given as an order to the nurse. Water can also be given by the rectum. Many diabetic cases are constipated. As routine he advises giving enemas until results. He next took up the alkalinization and the use of sodium bicarbonate which could be given by mouth or by rectum, and not to be given intravenously. Patients should not be allowed to relapse into coma. Frequent examination of the Urine for sugar is very important.

The next and final paper on the program was "Hypertension,'" by Dr. M. A. Mortenson. Dr. Mortenson stressed the importance of taking the blood pressure at different intervals in different positions; myocarditis shows in different positions. Under etiology, Dr. Mortenson presented slides showing his investigations in 300 cases of arterio-sclerosis and positive history of cardio-vascular-renal diseases in 67.6 per cent. Other hereditary diseases, asthma, obesity 7.6 per cent, negative or no information 24.6 per cent, average weight 170 pounds. The following shows the blood chemistry:

Uric Acid Below

3 mgs.	7 cases
3 and 3.5	16 cases
3.5 and 4	93 cases
4 to 4.5	83 cases
4.5 to 5	66 cases
5 to 5.5	16 cases
5.5 to 6	14 cases
6	7 cases

He next took up 200 cases of uric acid above 4 mgs. One hundred and sixty, or 80 per cent, had obesity, arterio-sclerosis; 40 or 20 per cent migraine, average weight 176 pounds; 115 gave a history of arterio-sclerosis; 19 obesity; 10 migraine; 4 asthma; 52 no information. He next compared 200 below 3 mgs. of uric acid. One hundred and sixey-nine negative; 12 arterio-sclerosis; 75 neurasthenic; average weight 132 pounds. He next took up 200 cases of healthy women. One hundred and twelve, or 56 per cent of the uric acid was below 3.5 mgs.; 22, or 11 per cent, had a positive family history; 88 per cent uric acid above 35 mgs.; 49 or 24½ per cent gave a positive family history. He next took up the management of the diet and advised low protein diet; any foci of infection should be eliminated. The foods were next shown on the slides, those basis in reaction and those acid in reaction. He strongly advised dietetic regime.

The meeting then adjourned with a very sumptuous dinner at which twenty-two doctors were present. Following the feast Harvey George Smith gave a talk on united effort and organization of the State Medical Society assisted by the County Medical Societies and the necessity of various committees to assist the Secretary in arranging the programs. He read an article on the minimum program which was printed in the last issue of The Journal and explained the plan to the Society. He also urged a large attendance at the state meeting to be held in Muskegon in September. Dr. Windshield of Trout Creek next recited pieces of poetry of which he was the author. They were very delightful. Dr. A. F. Fischer next gave a talk on the very fine program which we listened to and which he had had the privilege of hearing at Marquette the day previous.

Dr. Frank Curtis of Detroit who was here conducting the Crippled Children's Clinic, next gave a talk on the methods of diagnosis and treatment of crippled children. Dr. Ada V. Wright of the Ohio State University next made a few remarks on her appreciation of being able to attend the conference and the enjoyable time which she had spent. Dr. W. H. Dodge of Hancock next made a few remarks on the fine program and the fine conference which we had listened to, and also the matter of the Crippled Children's Clinic which he considered a very important movement.

A very enjoyable and instructive conference was indulged in by all of the 35 doctors who attended, and the Houghton County Medical Society takes this means of extending our sincere thanks and appreciation to the members of the State Medical Society and the profession who came and gave such very interesting and instructive talks.

The Crippled Children's Clinic which was held by the Rotary Clubs of Hancock and Houghton July 9 and 10 was a very marked success; 164 crippled children were examined by Dr. Frank Curtis of Detroit in the two days. The Houghton County Medical Society assisted in making the Clinic a success by their presence and by helping to take histories.

Yorus very truly,

G. C. Stewart, Secretary.

ALPENA CO.

The regular yearly social session of the Alpena County Medical Society was held at Fireside Inn, Grand Lake, on Thursday, June 18th. The doctors and their ladies to the number of thirty, took dinner at 6 p. m.

The program included appropriate recitations by Mrs. C. M. Williams, Miss Emma Potter and Mrs. E. L. Foley. The President of the Society,

Dr. S. T. Bell, gave a very interesting discussion of the general practitioner and the specialist. He called attention to the fact that about ninety per cent of ailments were capable of relief by the general practitioner and he urged a preparation by the general practitioner to meet the situation.

Following the dinner a launch ride on Grand Lake was enjoyed after which a social hour of music brought back pleasant memories of the past. At the suggestion of the ladies the President appointed a committee of doctors' wives to arrange for another social session during the summer.

C. M. Williams, Secretary.

MINUTES OF THE EXECUTIVE COMMITTEE

The Executive Committee of the Michigan State Medical Society held its meeting at the Pantlind Hotel, Grand Rapids, Mich., July 1, 1925.

Present—J. B. Jackson, Geo. L. LeFevre, R. C. Stone, Harvey George Smith, F. C. Warnshuis.

1. The Secretary-Editor reviewed the work of his office since the last meeting of the Executive Committee and reported splendid progress in regard to all of the activities of the State Society. He submitted program for the Annual Meeting which has been prepared by the Scientific Committee. The plan of this program was approved. He also submitted blue-print plan of arrangement of the auditorium in Muskegon for the holding of the Annual Meeting, and also arrangements that had been made for Exhibitors. This plan was also approved. A trial balance of finances of the organization was submitted for the information of the Executive Committee. The Secretary was instructed to extend an invitation to Dr. W. J. Mayo, to be the invited speaker at the first general session of our Annual Meeting. In the event Dr. W. J. Mayo is unable to accept the invitation, the Secretary was instructed to invite Dr. Charles Mayo and if in turn unsuccessful then to extend an invitation to Dr. Geo. W. Crile.

2. Expenses of the delegates to the American Medical Association were audited and ordered paid in full.

3. The Secretary and the Executive Secretary, Mr. Smith, reported in detail on the Clinical conferences that have been held in the past and also on the planned conferences that are to be held in the Upper Peninsula, and programs that were to be carried out for these conferences. This report was approved.

4. The Executive Secretary, Mr. Smith, presented a plan of Minimum Program, copy of which plan appeared in the July issue of the Journal. The plan was approved and instructions were given to use every means available to cause County Societies to adopt this Minimum Program.

5. Request to Council and Society, by Council District No. 13, to take in certain other organizations and from a northern Michigan Medical Society for the purpose of better organizing the physicians of the Upper part of the Lower Peninsula, was discussed and referred to the full Council for its action at the September meeting of the Council.

6. The amalgamation of Hillsdale, Cass, and Branch Counties was discussed and this also was referred to the Council for action at the September meeting.

7. The general features of organization work were discussed in general, and the Executive Committee expressed its approval of the activities that were being carried on and recommended the continuation of this work.

Among the Books

A Review and Frank Appraisal of Medical Books That are Proffered to the Profession by Publishers.

MEDICAL CLINICS OF NORTH AMERICA: (Issued serially, one number every other month). Volume IX, Number I. (St. Louis Number, July, 1925). Octavo of 275 pages with 67 illustrations. Per clinic year, (July, 1925 to May, 1926) paper, $12; cloth, $16 net. W. B. Saunders Company, Philadelphia and London.

THE SURGICAL CLINICS OF NORTH AMERICA: (Issued serially, one number every other month). Volume V, Number III. (Mayo Clinic Number—June, 1925.) 260 pages with 115 illustrations. Per clinic year (February, 1925, to December, 1925) paper, $12; cloth, $16 net. W. B. Saunders Company, Philadelphia and London.

THUTH ABOUT MEDICINES

(New and Non-Official Remedies)

Scarletinal Antitoxin (Unconcentrated)—Mulford.—A scarlet fever streptococcus antitoxin (Jour. A. M. A., May 2, 1925, p. 1338). It is prepared from the serum of horses treated with subcutaneous injections of toxic filtrate from cultures of scarlet fever streptococci and also with intravenous injections of the streptococci themselves. Each c.c. neutralizes at least 10,000 skin test doses of scarlet fever toxin. Marketed in packages of one syringe containing 10 c.c. (prophylactic dose) and in packages of one vial containing 40 c.c. (therapeutic dose). H. K. Mulford Company, Philadelphia.

Scarlet Fever Antitoxin-Lederle (Unconcentrated).—A scarlet fever streptococcus antitoxin (Jour. A. M. A., May 2, 1925, p. 1338). It is prepared by immunizing horses by the subcutaneous injection of the toxic filtrate obtained by growing the scarlet fever streptococcus in broth; also by injection of cultures of the scarlet fever streptococcus. Each c.c. neutralizes at least 10,000 skin test doses of scarlet fever toxin. Marketed in packages of one syringe containing 10 c.c. and in packages of one cylinder containing 50 c.c. with an intravenous injection outfit. Lederle Antitoxin Laboratories, New York.

Insulin-Stearns 80 Units, 5 c.c.—Each c.c. contains 80 units of insulin-Stearns (New and Non-Official Remedies, 1925, p. 174). Frederick Stearns & Co., Detroit.

Insulin-Stearns 80 Units, 10 c.c.—Each c.c. contains 80 units of insulin-Stearns (New and Non-Official Remedies, 1925, p. 174). Frederick Stearns & Co., Detroit.

Tuna Fish Protein Extract Diagnostic—P. D. & Co.—A protein extract diagnostic—P. D. & Co. (New and Non-Official Remedies, 1925, p. 289). Parke, Davis & Co., Detroit. (Jour. A. M. A., July 4, 1925, p. 35).

NATIONALLY KNOWN SPEAKERS ON ANNUAL PROGRAM AT MUSKEGON

Loeflund's Malt Extract.—A preparation essentially similar to extract of malt U. S. P. It is marketed as Loeflund's malt extract with calcium (containing calcium lactophosphate 0.5 per cent.) and Loeflund's malt extract with cod liver oil (Norwegian cod liver oil 33 per cent). Britt, Loeffler & Weil, New York, distributor. (Jour. A. M. A. July 11, 1925, p. 115).

Neosalvarsan Dose XII.—Each tube contains neosalvarsan. (New and Non-Official Remedies, 1925, p. 50), 1.8 gm. H. A. Metz Laboratories, Inc., New York.

Schick Test—Lilly.—Diphtheria Immunity Test (Schick Test) (New and Non-Official Remedies, 1925, p. 50) is also marketed in packages of two vials, one containing diphtheria toxin sufficient for fifty tests and the other vial containing the proper amount of diluent. Eli Lilly and Co., Indianapolis. (Jour. A. M. A., July, 1925, p. 269.)

PROPAGANDA FOR REFORM

Listerine—So far as the composition is concerned, the use of Listerine as a simple mouth wash is unobjectionable. Unfortunately the manufacturers are not content to recommend and advise it exclusively for the field in which it has a place. Listerine is exploited with an air of conservatism, even a statement of composition is given, which, however, is essentially meaningless. While the claims as to antiseptic efficiency and the claim that it is a deodorant (it is not a deodorant, but merely covers one smell with another) may in general do little harm when Listerine is used as a "toilet preparation," the advertising that accompanies trade packages contains recommendations for its use in serious conditions, the self-treatment of which is a danger to the individual and inimical to the public health. The potency for harm that these recommendations have, is all the greater because the manufacturers affirm that they "do not advocate self-medication, even with Listerine." The trade package circular recommends the use of Listerine in "tonsilitis"; this may easily lead to its employment in undiagnosed cases of diphtheria, and dependence on it in such conditions may be the means of spreading this infective disease. The circular suggests its use in "bronchitis", which may be tuberculosis or pneumonia. It recommends its use in "leucorrhea"; this may lead to the self-treatment of a serious infection. The self-treatment of any such conditions is fraught with danger to the individual and to the community. (Jour. A. M. A., July 4, 1925, p. 55).

Treatment of Snake-Bite—The indications for the treatment of snake-bite are the same as those for any other kind of poisoning: namely, first to remove the poison, secondly, to remove the effects. Immediate interruption of absorption should be attempted by application of a bandage for a period. Removal of the poison from the wound after having enlarged it, by sucking, by washing, or by destruction by red heat or a caustic is the next thing to attempt. The third, most important remedy, is the injection of antivenom serum, which must be specific for the particular venom involved. (Jour. A. M. A. July 4, 1925, p. 57).

The Parathyroid Hormone—The significance of a hormone elaborated by the parathyroid structures for the metabolism of calcium, at least so far as the relation of the content of this element in the blood is concerned, seems to be well established. The promise of preparing an effective parathyroid product seems about to be fulfilled in various places. The publications of Hanson in 1923 show that he was actively engaged in the extraction of an active product. Since then success had attended the investigation of Fisher and Larson and particularly those of Collip. Both Collip and Fisher and Hanson warn against the possible dangers of unwarranted therapy with potent preparation, for for symptoms of atonia depression, diarrhea and dyspnea are readily produced by large doses of a potent preparation. (Jour. A. M. A., July, 1925, p. 118).

The Quantitative Accuracy of Medical Tablets—Attention has been called repeatedly to discrepancy between the actual composition and the claims made for various tablets and pills sold to the medical profession. Variations as high as 54 per cent above and 70 per cent below the label statement of composition has been found. Two associations of pharmaceutical manufacturers have appointed a joint committee which collaborates with the government authorities in an attempt to bring about improved conditions. During the past years, attention has been given by this group to the composition of hypodermic tablets. As a result of this study, plans for controlling the degree of accuracy of hypodermic tablets have been issued by the federal Bureau of Chemistry in which is given a maximal permissible variation, ranging from 7.5 to 9 per cent. The fact that the pharmaceutical industry collaborates with the governmental authorities in the establishment of standards is encouraging. (Jour. A. M. A., July 11, 1925, p. 118).

Rheumeez Not Accepted for N. N. R.—The Council on Pharmacy and Chemistry reports that "Rheumeez" (Casco Laboratories, Elizabeth, N. J.) is claimed to be magnesium cinchophen, the magnesium salt of 2-phenyl-quinolin-4-carboxylic acid. From the advertising issued for the product, one gets the impression that the production of the magnesium salt of cinchophen is a noteworthy achievement on the part of the Casco Laboratories and that the product is superior to cinchophen. However, this compound is the analogue of the well-known cinchophen-sodium. When a solution of Rheumeez is treated with dilute hydrochloric

acid, cinchophen is precipitated: therefore the compound will be decomposed in the gastric fluid of the stomach and its administration will be equivalent to the administration of cinchophen accompanied by an insignificant amount of magnesium. The Council found Rheumeez unacceptable because (1) it is an unessential modification of the established drug cinchophen; (2) it is marketed under a non-descriptive therapeutically suggestive name; and (3) it is advertised with unwarranted and misleading claims which will lead the public to attempt self-medication in conditions which require the diagnosis and supervision of physicians. (Jour. A. M. A., July 11, 1925, p. 132).

Prevention of Mosquito Bites—Numerous preparations have been proposed to be applied to exposed parts of the body to prevent mosquitos from biting. Among these are oil of pennyroyal, resorcin monoacetate euresol, various forms of petroleum, and powders and washes similar to the following: oil of eucalyptus 25 c.c., talc 50 gm., starch 325 gm., oil of cinnamon 1 c.c., oil of patchouli 1 c.c., oil of santal 4 c.c., alcohol to make 400 c.c. (Jour. A. M A., July 11, 1925, p. 134).

The Wilkens-First Cancer Cure—During the last ten years literature has been sent out by an illiterate advertising cancer quack, one J. K. Wilkens of Muscatine, Iowa. Apparently it is an escarotic paste. Some years ago it was stated that this treatment had been endorsed by Dr. F. H. First and used in a hospital in Rock Island. Dr. First admitted that he was using the preparation. Dr. First was asked to disclose to the medical profession, the composition of the preparation which he was using. He replied that, until such time as he could "report on a list of cured cases" he could "see no reason to make the treatment public." This was in 1917, but Dr. First does not appear to have reported the list of cured cases nor given the profession the formula. (Jour. A. M. A., July 11, 1925, p. 135).

Lowering the Blood Pressure with Liver Extract—The effect of liver extract administration on blood pressure was studied in thirty-three cases. In these cases hypertension had persisted for varying periods. Physical sodium chloride solution of extract of the liver was injected intravenously. Twenty-five patients experienced no disagreeable symptoms, most of them reported apparent relief. In eight cases there were reactions of varying degree, some of which resembled protein shock. There was an average fall in the systolic pressure of 62 mm., and an average fall in diastolic pressure of 28 mm. Investigations are under way to determine the constituent or constituents of liver responsible for the effect on blood pressure. The clinical value of liver extracts will depend, not only on the development of a stable and uniform extract, but also on the permanence of the fall in pressure and its relation to other pathologic changes existing in the body. (Jour. A. M. A., July 18, 1925, p. 194).

Mizar—Mr. Sorokowski, formerly of Chicago and now apparently operating from a suburb, Oak Park, sells, "especially to the foreign element" a product that he calls "Mizar" as "the most effective remedy for rheumatism." Mizar comes in the form of an ointment. Two cases of dermatitis venenata from its use have been reported. The A. M. A. Chemical Laboratory examined Mizar and reports that the preparation may be considered essentially an ointment, the chief active ingredient of which is an extract of capsicum. Presumably a product of this sort appeals to those purchasers of "patent medicines" who feel that they are not getting their money's worth unless the preparation has an appealing smell or taste, or produces some physiologic reaction that will make them sit up and take notice. (Jour. A. M. A., July 18, 1925, p. 212).

Administration of Hexamethylenamin—In a solution containing hexamethylenamin 3 gm., acid sodium phosphate 9 gm. and distilled water 120 cc. a faint reaction for free formaldehyde is obtainable, though the reaction is much less intense than that obtained in a solution of the same amount of hexamethylenamin in 0.2 per cent hydrochloric acid. In the course of days when kept at ordinary room temperature and in diffused light the formaldehyde reaction in the solution increases. When recently prepared the acid sodium phosphate-hexamethylenamin mixture is not objectionable; however, in view of the comparative instability of the mixture it is advisable, either as Useful Drugs recommends, to administer acid sodium phosphate midway between the doses of hexamethylenamin or else to add hexamethylenamin to a solution of acid sodium phosphate just before administration. (Jour. A. M. A., July 18, 1925, p. 214).

Sodium Iodid in Asthma—The use of iodids as adjuvants in the treatment of asthma seems to be of such general acceptance that recent medical literature reveals few special studies of its effects in this condition. The intravenous administration of sodium iodid in this condition has been reported. However, a report on the intravenous administration of sodium iodid in the Mayo Clinic states that there is no advantage in using sodium iodid intravenously, except in a few cases where massive doses might cause iodism. The Council on Pharmacy and Chemistry does not endorse the routine administration intravenously of sodium iodid. The Council holds that intravenous medication generally is not as safe as oral administration, and further, that there is little if any justification for the intravenous administration of such agents as sodium iodid, because their systemic effects are promptly obtained from oral administration. (Jour. A. M. A., July 25, 1925, p. 290).

THE SCIENTIFIC PROGRAM AT MUSKEGON WILL BE ENTIRELY CLINICAL

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AN INVESTIGATION OF NURSE SHORTAGE

State-wide investigation of the nursing situation has been undertaken by the New York Medical Society.

This organization, through a special committee recently appointed, will make an exhaustive study of the general shortage of registered nurses and the apparent strained relations between the medical and nursing groups.

Such action was decided on at the request of the Medical Society of Kings County together with several other medical societies throughout the state who feel that the problem has become vital and demands immediate attention.

Present conditions were brought before the state society through the following resolution presented at the Rochester convention.

Whereas, Deplorable conditions have developed and now obtain in an ever-increasing degree in the relations existing between the group of registered nurses on one hand and the physicians and general public on the other hand; and

Whereas, We feel that the laws of the state of New York now governing the training of nurses are serving to educate a group of women beyond a point of practical usefulness in the actual care of the sick, and

Whereas, A large percentage of such highly educated nurses elect to follow the work of public health nursing, institutional instruction and other lines of work than actual nursing of the sick; and

Whereas, We feel that the lines of work just mentioned do require education and training of the kind now conducted in our registered schools, but

Inasmuch as there is a crying need for a group of women trained in the practical duties pertaining to the real nurse and who shall be thoroughly imbued with the idea that the first and greatest function of a nurse is to care for the sick, and

Inasmuch as it is generally agreed by the medical profession throughout the country that women may be properly and thoroughly trained for such duties in a much shorter time than is now required for the graduation of registered nurses, and that a curriculum requiring less theoretical teaching and more bedside training can be adopted and would develop efficient nurses in from nine months to a year, and

Inasmuch as such hospitals as attempt to carry out such a course of instruction are hampered in their work by opposition from the Department of Education, now, therefore be it

Resolved, That the House of Delegates of the medical society be instructed and urged to attack this problem and support, by every means in their power, legislation looking towards an amelioration of the conditions now existing.

This committee has asked for a year's time for their investigation. One of its first steps, it is said, will be a meeting with a committee representing the New York State Nursing Association.

Mrs. Anna L. Hanson, president of the state association, has notified the committee of her willingness to meet with them and give the support of her organization to any betterments which may be decided upon.—Brooklyn Citizen-Union.

The Journal
OF THE
Michigan State Medical Society
ISSUED MONTHLY UNDER THE DIRECTION OF THE COUNCIL

Vol. XXIV. GRAND RAPIDS, MICH., SEPTEMBER, 1925. No. 9

Original Articles

ULTRA-VIOLET RAY TREATMENT IN SACROILIAC DISEASE

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DETROIT, MICHIGAN

In the past as well as at the present time most of the severe cases of sacroiliac disease have and still are being treated by applying plaster paris casts and corsets, by medication, as salicylates, arsenic, iodine, etc., which have been used with slight relief in some, while in others, physicians have been forced to use opium (in various forms) for at least temporary relief, by vaccines (of various kinds) which have been tried in a few with benefit and lastly by hydrotherapy.

Under the above treatment some have had recurrences. The time lost has meant so much, being from a period of two weeks to three months and longer, and to others, the suffering has forced patients to change physicians repeatedly until the last physician called in was given credit for relief which was in sight. The expense that many of the poorer classes have had with the above treatment has been beyond their means. In summer, particularly during the very warm days, to wear anything heavy like a cast has meant so much discomfort to the patient. There are many more factors to be discussed, but I shall not write any more concerning them.

Since the ultra-violet ray has been instituted in the treatment of diseases, we have been able to dispense with some of the most disagreeable and painful methods of treatment, in the relief of this disease. The casts and corsets have been discarded by me, drugs have been a very negligeable factor, thereby running no risks of gastro intestinal discomfort from salicylates or the possibility of forming addicts from the use of opium, nor finally of producing painful reactions from the use of vaccines hypodermatically. In my experience hydrotherapy has given relief but not as rapidly as the ultra-violet ray treatment which is given below.

The time factor to the poor to whom every minute means a livelihood, and to the rich who might lose an important deal, is also considerably reduced. The most painful have been relieved (or cured?) within the first two, three or four treatments, which are given every other day. Even though this is early to report my cases because of the possibility of relapses or recurrences, and even though this should only be a relief, I feel this treatment should be given a fair trial because of its clean, easy and painless method of restoring our patients to comfort for which they originally consulted us. The expense is within reach of all.

It is unfortunate that the apparatus for the ultra-violet ray is nonportable, for it means the conveying of the patients, who are in so much misery, to the physician's office, or to the hospital for treatment.

To begin with, each patient received a thorough examination to determine the condition and to find the foci of infection, (if one could be found). Many of these patients reported had X-ray examinations to verify the diagnosis of sacroiliac disease. In each case the foci of infection were not removed until after treatment. As a rule I insist upon removing the etiological factors first before instituting treatment, but most of these individuals were so miserable that if relief was not given, the patient might have visited someone else. But as soon as the patient felt better, all abscessed teeth, diseased tonsils, etc., were taken care of.

TREATMENT

Upon making my diagnosis I prescribed pyramidon gr. V, codeine grs. ½ in order that the tension of the patient might be relieved and then had each patient come to the office for treatment. Here I used the water cooled lamp for thirty seconds over the joint, exerting pressure so as to obliter-

ate the circulation, then following by the air cooled machine for one minute, at a distance of 15 inches from the patient, and finally used heat obtained from the (1,000 watts) bulb and applied over the sacral area for a period of 15 to 30 minutes, depending on the condition of the patient. The time of exposure with the air cooled lamp was increased at each treatment by doubling the time of the previous exposure.

The (1,000 watt) bulb alone in three of these cases gave very little relief and only upon adding the ultra-violet ray did relief come as if miraculously. In some cases I used the ultra-violet ray alone and here I found the results as favorable as when given in combination with the heat rays. The ultra-violet ray does not offer any satisfaction for the mental attitude of the patient and heat does, therefore the use of both. Also the heat hastens the results somewhat by its synergistic action.

Outside of the above no medication was given and all are well today without any recurrence up to the time of this writing. This report is only of cases that have been treated six month ago or longer. In giving the history of each of the cases reported below I shall give only pathological findings.

CASE REPORTS

Case 1. Mrs. J. G., white, housewife, age 36, treated April, 1924. Two years ago had rheumatism, as patient expressed herself. On further questioning learned it was arthritis, particularly of wrists and fingers. About nine months previous to my treatment she had a cast to immobilize the sacroiliac joints. Wore cast for six weeks and was relieved for six months. Then had second attack. Saw patient lying in bed unable to move, with both sacroiliac joints painful. On physical examination found septic tonsils, cervical adenopathy, chronic sinsuitis involving both antri and frontals as determined by transillumination, systolic murmur present, tracheobronchial glands enlarged and down to the fifth dorsal vertebra. Hypertrophic arthritis of finger joints, both wrists, knees and ankles. There was some oedema about all these joints. Sacroiliac joints painful on examination and motion. Differential count gave a relative lymphocytosis, urine showed few casts and pus cells. X-ray verified diagnosis. Patient was practically carried into office by her husband. After the treatment the patient felt some relief and returned for the second treatment complaining of only slight pain. For the third treatment she walked up the stairs and had no pain. I gave her six treatments. Patient returned May 15, 1925 with pain in abdomen and back. Palpation disclosed a spondylitis of the 4th and 5th lumbar vertabra, no pain in sacroiliac joint, and was given treatment with complete relief.

Case 2. Miss B. J., white, age 23, treated April 1924. Came to office complaining of pain on walking and inability to sit down or get up when once seated. On examination found two abscessed teeth. Tenderness over both sacroiliac joints. Treatment given, patient returned saying all pain was gone. Gave two more treatments. Patient well at present time.

Case 4. Mr. A. M., white, age 53, treated February, 1922. Had recurrent attacks of what he called sciatic rheumatism for five to seven years previous to my seeing him. There is a history of alcoholism. Teeth were very bad with a severe pyorrhoea, cervical adenopathy was marked, left sacroiliac joint tender on palpation. X-ray gave positive findings of sacroiliac disease. Wassermann negative. Urine shows trace of albumin, few casts and pus cells. Leucocytosis 14,000 with polymorphonuclears predominating. Was carried to office, one treatment given, relieved in 12 hours. Refused further treatment, and no recurrence up to present time. ,

Case 4. Mrs. D. G., age 45, white, housewife, treated ten months ago. Complained of headache, backache and inability to get up in the mornings. Has large family so must be up and doing. All teeth extracted. X-ray of sinuses shows clouding of frontals, ethmoids and antri. Neck in back feels oedmatous but does not pit. Right sacroiliac joint tender on palpation. No X-ray taken of sacrum. Urine negative. Relative lymphocystosis of 44 per cent with eosinophile 2 per cent, monouclears 6 per cent, polymorphonuclear 48 per cent on last count. First count showed 65 per cent lymphocytes. Treated sinuses with ultra-violet ray and produced a marked drainage, patient using as many as fifteen man size handkerchiefs a day. Also treated the sacroiliac joint. Patient had three treatments and backache was gone. Headache occasionally. Eight treatments of sinuses given, patient considerably relieved. Has not returned for further treatment of sinuses, but has not had another attack of backache up to present time.

Case 5. Mr. G. R., age 23, white, grocery clerk, treated nine months ago. Complaint—Pain in back and lower extremities, unable to walk or turn around while in bed. Teeth bad, chronic prostatitis. Palpation over sarcoiliac joints very painful. X-ray not taken. Treatment given. Two days later walked into office considerably improved. Refused further treatment, because he did not have any more pain. Prostatic condition neglected by patient. No recurrence to date.

Case 6. Mrs. C. A., age 53, white, housewife, treated eight months ago. Saw patient about eighteen months ago. Complained of pain in back and inability to get around to do her work. Could not climb stairs or walk any distance. On examination showed a chronic atrophic rhinitis with drainage from both antri but no cloudiness. Lipoma over right sacroiliac joint and pain on palpation. Blood pressure, systolic 150, diastolic 70. Relative lymphocytosis. Urine contained granular and hyaline casts. Believing lipoma the cause of pain, had it removed by a surgeon. Patient relieved after being in bed and off feet for a few weeks. Then returned with same pain a few months later. Gave ultra-violet treatment and was relieved on first treatment. Gave two more. Is well now.

Case 7. Mr. T. J. K., colored, age 36, treated nine months ago. Cannot bend or walk any distance, pain in legs and back. Examination disclosed one impacted molar and four abscessed teeth. All extracted before treatment. Patient was not relieved under salicylates. Right sacroiliac tender. Gave four treatments and patient was relieved. Had a total of ten treatments. It

is difficult to obtain quick results in colored people because of the increased pigment which delays the action of the ray. There was a history of trauma in this case. Here I used the heat rays alone for about ten treatments and was unsuccessful, therefore added the ultra-violet ray treatments alone. Patient is well at present time.

Case 8. Mrs. P. A., age 58, white, housewife, treated six months ago. Complained of being unable to get out of bed or walk. Has had about seven or eight attacks within the last three years. The other attacks subsided within a few days. This was worse than any previous and had lasted a week when I was first called. No teeth, chronic sinusitis with tenderness over gall bladder and sacroiliac joints, myocarditis. Gave ultra-violet ray only, and patient, who was practically carried up for the first time, walked into the office for the second treatment, greatly relieved. Gave two more treatments which patient claimed were unnecessary for she felt perfectly well. No recurrence up to present time.

Case 9. Mr. L. R., age 23, salesman for electric supply house, treated six months ago. Complains of being unable to get out of bed or walk. Chronic sinusitis, two abscessed and many devitalized teeth. Severe pain over both sacroiliac joints. Gave pyramidon and codenae, and patient was brought up to office. Relieved completely after one ultra-violet ray treatment alone. Gave two more treatments. Patient has not complained since.

Case 10. Mrs. A. J. C., age 29, white, housewife, treated six months ago. Complained of aches all over body, backache and pain in lower abdomen, scanty menstruation. On examination showed intumescent rhinitis, two abscessed teeth, not yet abstracted, cervical adenopathy, thyroid slightly enlarged, rales in chest, both tubes tender and swolen on palpation, erosion of cervix with leucorrhea, left sacroiliac tender. Kl given, also ovarian and pituitary extracts. Ultra-violet ray treatment given. Backache gone after the first treatment. Two more were given for sacroiliac condition. Patient's menstruation normal two months after first seeing patient. No backache since.

COMMENT

I am not trying to be overly enthusiastic nor optimistic. The above have been my results in every case that I have reported, as well as those I have not reported. Those cases which are under treatment have responded similarly. I did not report any case that has been under my observation for less than six months, nor report any cases of spondylitis. One case of spondylitis I have in mind has had many recurrences and many reliefs under this treatment. In case 1, reported above, the patient returned with a spondylitis, but after the second treatment was free from pain. She is very much elated over her sudden relief for she dreads a cast these hot days. I do not claim any sensational cures by this treatment. I am only appealing to the medical profession to give this method a trial so that our patients be relieved as soon as possible from this crippling and painful disease.

If it is possible to relieve or cure by this method, why not try it? I have not met a case that has not responded to this treatment. I do not claim a cure all for this is too early to make such a statement.

PLASTIC SURGERY OF THE DEEP URETHRA

R. E. CUMMING, M. D.
DETROIT, MICHIGAN

Plastic repair, or the practice of external urethrotomy, done as emergency operative procedures, are relatively common; the deliberate resection of more or less massive portions of the urethra to overcome stricture, is applicable to many individual cases, both in the relatively early stages of stricture diseases, and later as a correct substitute for dilatory or ineffectual dilatation of the urethra at irregular intervals. The provision of adequate bladder emptying as a necessity for health and the protection of renal tissue, particularly in individuals of middle age or later life, is so well understood in connection with diseases of the prostrate gland, that one need not dwell on this phase of the urinary mechanism except insofar as is necessary to show the relatively parallel states, retention due to prostate hypertrophy on the one hand, and to extra-prostatic urethral obstruction.

Traumatic strictures, with the coincident involvement of extra-urethral tissues, are perhaps more prone to recurrence following dilatation than that type so commonly seen following gonorrhea. It may be said that a stricture is not cured as long as recurrences are possible. Following traumatic urethral injury or rupture, the hemorrhage, displacement of muscle and fascia, common infection, and late scar contraction, all constitute factors resulting in unsatisfactory end-results; passage of sounds becomes more difficult, false passages are often made and incomplete bladder emptying becomes a practical certainty.

Notoriously, patients with urethral strictures, are irregular attendants upon office or clinic practice; a relatively simple and safe operative procedure which promises complete functional cure with a minimum of after-treatment seems a most logical offering for such individuals. The recurrence of acute retention, the renal danger and the final inability to procure relief by sound or

catheter, often make surgical intervention imperative in both traumatic and gonorrheal strictures. The avoidance of this outcome will prove acceptable to patient and surgeon alike.

Granville MacGowan, of Los Angeles and Maxmillan Stern of New York, have published their observations relative to this subject in recent years. Their technique differs in many details and yet a study of their illustrations simplifies what might seem a difficult surgical problem. Their conclusions are that resection of strictures is conducive of most excellent results and is a procedure worthy of common use. Stern's operation is more applicable to strictures which do not involve the entire extent of the urethral lumen at the involved point and occur at or near the junction of the bulbous and membranous areas; it does not take care of those cases of traumatic or cicatricial loss of the corpus spongiosum.

MacGowan, having experienced the need of dealing with complete loss of anatomical parts and of fashioning a method applicable to the entire range of urethra anterior to the triangular ligament, compares radical urethral dissection and plastic repair to these surgical procedures elsewhere in the body and emphasizes the utility of the very rich blood supply attending the urethra throughout its course. With the corpus spongiosum liberated, one can readily see the possibilities of uniting the healthy ends of the canal after an immense area of involved stricture scar has been removed. N. Petroff of Berlin reported good union of the urethra in a patient after resection of 16 cm.

The dissection and later closure of the perineal tissues require care and an intimate knowledge of the structures involved. Wide exposure is of tremendous advantage for easy handling of the deeper strictures. I prefer an inverted "U" shaped skin opening as advocated by Thomas, of Philadelphia, and others, to the usual inverted "V" shaped incisions popularized by Young. Primarily suprapubic bladder drainage which conveniently extends into the post-operative period is nearly always wise; some consider it imperative. The use of a catheter in the newly-sutured urethra is a necessary step to insure healing without coaptation of granulation tissue which can conceivably dip into the urethral lumen in many instances. This danger is more apparent when it has not been possible to suture the entire extent of the urethral wall.

CASE REPORTS

Two cases, older men, in my care at the same time and operated upon after the manner of MacGowan afford ample evidence of the good results one may obtain even in adverse circumstances. Unfortunately, it is too often necessary to operate late in the course of the disease as palliative methods and partial voiding aid the patient to elude surgical experiences. Brief outlines will serve to present the problems of these two patients and to indicate the ease and rapidity of obtaining lasting results.

Case No. 1. W. R., age 57.

Diagnosis—Impermeable stricture bulbomembranous urethra. Abdominal hernia through scar of previous cystotomy (suprapubic).

History—Twenty years ago, fell for some distance, landing astride a sharp timber. Severe contusions of perineum sustained with rupture of urethra in perineum and acute hemorrhagic urinary retention A suprapubic cystotomy was performed and continued drainage occurred for many months. An external urethrotomy was performed at a later date, an attempt being made to close urethra. The suprapubic sinus was then allowed to heal. Never able to pass urine freely; at intervals retention has occurred ever since. Early in convalescence, sounds were passed; none for past eight or ten years. On several occasions abscesses have developed in the region of the perineal scar, necessitating open drainage. For past three years, moderate incontinence day and night, patient using rubber urinals; desire to void constant during waking hours, so that he does not feel relieved. For past several months (during period of writer's care), it has been possible occasionally to pass a filiform bougie into bladder; nothing of larger calibre attempted. A few days prior to admission to hospital, a massive induration in perineum developed, continuing to abscess formation. No urination possible; dribbling continuously.

General condition poor; patient anemic, has no appetite, cannot sleep. Suspected of having pulmonary tuberculosis for past year. Tonsillectomy nine months ago for recurring cough and sore throat.

Physical Examination—Essentially negative except as indicated above.

Operation—1. September 15, 1924., a. m. Incision perineal abscess under gas anesthesia. Large amount of pus evacuated. Urethra not opened.

2. September 15, 1924, p. m. Dribbling diminished following operation. Suprapubic cystotomy performed to institute drainage of bladder. Novocaine anesthesia. Bladder readily opened; large elbow tube inserted. Closure.

3. March 26, 1924. External urethrotomy. Excision 1¾ inches urethral scar. Approximation of urethra in superior portion by two chromic sutures. Perineum closed over 22 F. fine soft rubber catheter. Suprapubic drain replaced.

Explanatory Note—In spite of established drainage of perineum and bladder, no bougie or filiform bougie could be passed through the urethra which was located by means of retrograde sounding, passage of a sound in the penile urethra to site of stricture and the previous injection of methylene blue solution into the urethra. On September 22, 1924, the blood non-protein nitrogen was 27.2 mgm. per 100 c.c. blood plasma.

YOU CAN ILL AFFORD TO MISS THIS EXCEPTIONAL MEETING

Blood: Hgb. 75 per cent. R. B. C. 4,504,000. W. B. C. 8,500. Polymorphonuclears, 75 per cent.

Post-Operative Note—Urethral catheter removed tenth day; suprapubic tube, the twelfth day. On fourteenth day, No. 25 F. sound passed without difficulty; followed by a catheter for bladder lavage. Sounds passed every five to seven days for remainder of stay in hospital. Discharged thirty-second day with suprapubic wound healed, perineal wound having only a small superficial sinus. Patient voiding normally; no incontinence.

Final Note—March 1, 1925. Patient in office. Reports complete control, normal voiding. Urine clear. No. 26 sound passed readily.

Case No. 2. W. S., age 47.

Diagnosis—Stricture urethra, traumatic. Perineal abscess. Cystitis. Acute urinary retention.

History—Sixteen years ago fell astride a fence, rupturing perineal urethra. No operative attempt at closure; following rest and local applications, was able to void, experiencing great difficulty, which gradually subsided so that for years he was able to empty bladder fairly well. For past four years, difficulty of voiding has rapidly increased. In hands of physicians during that period; has had use of sounds, but without apparent benefit. On several occasions, complete retention, relieved by local applications, baths, opiates and medication internally. Of late, stream of no size or force, great straining needed to pass a few drops of urine and penis left swollen and red after attempts at voiding. For past few weeks prior to admission to hospital, constant pain in perineum which has become swollen. (For past twenty-four hours, no urine obtained; attempts at catheterization futile).

Gonococcus infection twenty-nine years ago. No sequellae.

Examination—General condition good; robust obese individual; physical findings except for genito-urinary tract, normal. Fluctuation in perineum; this area very tender.

Treatment—September 17, 1924. Whalebone filiform bougie passed with difficulty into bladder. A grooved very small catheter was passed over this, entering bladder. 2,000 c.c. urine obtained. Gas anesthesia. Prostate found normal. Entire perineum indurated; probable abscess.

September 18, 1924. Suprapubic cystotomy. (patient only temporarily relieved by catheterization one day ago). Large Freyer tube inserted for drainage. Perineal cellulitis subsiding.

September 29, 1924. Resection of bulbous urethra. External urethrotomy, 1½ inches urethra, including bulb itself (entire corpus spongiosum for area excised), removed by sharp dissection. Under anesthesia, it was possible to pass a No. 12 F. bougie into bladder. Involved urethra apparently canalized, spongy with false passages. The two urethral segments were mobilized and sutured completely together, over a No. 20 F. catheter, using fine chromic catgut. Perineum closed with liberal drainage of sutured urethra area.

October 22, 1924. Gas anesthesia. Dilatation of urethra. (Catheter removed ten days in post-operative period Attempts to pass sounds produced severe pain, due to tenderness in urethra). Under anesthetic, a No. 25 F. sound passed to bladder by its own weight.

Final Notes—October 30, 1924. Discharged from hospital; perineal wound entirely closed; suprapubic wound draining slightly.

March 1, 1925. No. 26 sound passes readily. Perineal wound has never broken down. Suprapubic sinus has reopened several times. At present, normal voiding, urine clear.

SUMMARY

Radical excision of large areas of urethral strictures and scars involving the corpus spongiosum is an accepted surgical method for certain cure of these diseased conditions and merits more general use. The present better understanding of the perineal anatomy in the male together with the recognition of the possibilities of healing due to the over supply of urethral circulation, go a long way towards solving the problem of poorly treated or impermeable strictures.

Traumatic, as well as infectious inflammatory strictures, lend themselves to this type of surgical treatment. It is interesting to note that both cases cited were strictures of traumatic origin.

The insufficient bladder drainage with strictures of long standing, especially in older men, constitutes a surgical obstacle as important as the hypertrophied prostate.

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LESIONS OF THE KIDNEYS PRESENTING VAGUE OR MISLEADING ABDOMINAL SYMPTOMS*

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The frequent failure to recognize lesions of the kidneys in those cases in which the symptoms are distinctly abdominal in type makes the discussion of this topic a profitable one. A decade ago, less than half of these cases were diagnosed correctly. While it is pleasing to note that each year sees a distinct advancement, yet fully one-fourth of them are still unrecognized, many cases having had from one to five unsuccessful operations, both to the disappointment of the patients and to the embarrassment of the surgeons, with a still larger number having been unfruitfully treated for periods varying from one to forty-seven years, without a thorough study of the urological tract having been made.

Many of us have been schooled to think

*Conclusions from a Review of Four Hundred Consecutive Cases Studied at the Urological Department, Battle Creek Sanitarium.

ONE WOULD HAVE TO TRAVEL FAR T O HEAR THESE DISTINGUISHED MEN

of the kidneys only when we meet the typical symptom of pain in the costal vertebral space radiating downward to the bladder, genitalia, or thigh; or when some abnormal finding, such as pus, blood, or albumen, exists in the urine. Yet it is a well established fact that these classical symptoms are present in only thirty per cent of kidney lesions. In the other seventy per cent of cases, the pains and symptoms are not specific. Pain due to kidney disease may be referred to any one of the four quadrants of the abdomen, particularly to the appendix and gall bladder areas, to the infra-scapular region, to the supra-pubic space. There may be symptoms of disturbed digestion; or vague nervous disorders; with no indication pointing specifically to the kidneys. Another misleading fact is that in 10 per cent of these cases the urinary reports as made in routine laboratory analysis are without any pathological findings. The X-ray plates may show no abdominal shadows and hence be considered negative. It is particularly in this group of cases, where the symptoms are not specifically renal in type, and where the urinary reports and X-ray findings are negative, that the greatest number of errors occur. While there exists some excuse for overlooking a few of these vague cases, it seems inexcusable to overlook those which do have definite signs or symptoms with pathological urine directly implicating the kidneys. However, physicians seem prone to forget the kidney as a possible factor in their patient's illness. Fully one-half of the cases referred to our department for cystoscopic data have come or been sent to the institution for some trouble other than that of the kidneys.

This led us to review the histories of four hundred consecutively studied cases, with the object of discovering why this situation exists. A brief mention of some of the facts revealed will show that these vague cases occur in every type of kidney disease; and that there is a common failure to appreciate the truth that serious diseases of the kidney may exist without specific symptoms or findings other than those to be obtained by cystoscopic examination.

CLASSIFICATION

For purposes of comparison, we divided our cases under consideration into eight groups: I. Infections. II. Renal Tuberculosis. III. Renal Calculus. IV. Tumors of the Kidney. VI. Nephritis. VII. Stricture of the Ureter. VIII. Hydronephrosis.

The percentage of each of these types of cases in our whole study is given in the table. The "other cases" are those in which the symptoms were not vague or misleading, and which are not, therefore, referred to in this paper.

Group	Percentage
Infections	58.5
Renal Tuberculosis	2.8
Renal Calculus	2.4
Polycystic Kidney	.8
Tumors of the Kidney	.8
Nephritis	.8
Stricture of the Ureter	5.4
Hydronephrosis	14.0
Other cases	14.5
Total	100.0

INFECTIONS

In this group we include pyelitis, pyelonephritis and pyonephrosis. In only 18 per cent of these did the histories give supposedly typical symptoms, pain in the kidney region. Eight per cent of them gave a definite history of pain in the epigastrium alone; 20 per cent had a combination of kidney and abdominal pain; 16 per cent presented no definite pains; and the remainder were vague. Ninety-eight per cent of them showed positive urinary findings sufficient to attract attention to the kidney, and yet, in this group, the duration of symptoms had been from one to thirty years before the condition was diagnosed—surprising proof that these signs are not given due consideration. Pain, in these cases, is not sharp or very pronounced, and only 4 per cent of them had been previously operated upon without relief of symptoms. In the case of acute pyelitis, the symptoms are more decided than in the group as a whole. But in fully one-half of them, the symptoms are more definitely abdominal than renal. Cases with high fever and prominent abdominal symptoms can exist with urine which is macroscopically clear and which has only few pus cells per microscopic field. In one of our cases of active infection, the kidney symptoms were completely obscured by a reflex ileus. These cases may simulate appendicitis, choliocystis or typhoid fever. Pyelitis should always be thought of in cases of abdominal symptoms with fever. It is usually accompanied by a higher fever with greater tendency to chills and sweats, and a lower leucocyte count, (scarcely above 15,000) than are the intraperitoneal lesions. In uncertain cases, all doubt can be removed by the passage of ureteral catheters to obtain segregated specimens for microscopic

and bacteriological study. A prompt remission of symptoms usually follows the passage of ureteral catheters. As an example, we had a case of acute pyelitis which developed in a patient convalescing from a choliocystectomy; onset with a chill, fever went to 105 degrees, with pains in the gall bladder region. The urine was macroscopically clear; microscopically it showed a few pus cells and a few shreds. The leucocyte count was only 15,000. The patient's surgeon feared abscess in the wound; but, before exploring, ordered cystoscopic examination, the findings of which revealed active infection of the right kidney. Pelvic lavage was followed by immediate remission of his symptoms.

RENAL TUBERCULOSIS

In this group we have abundant opportunity for error, as 25 per cent of these cases presented distinct abdominal symptoms, and 15 per cent with combined retroperitoneal and intraperitoneal symptoms. In one of our cases, the patient had had four previous laparotomies without relief—appendectomy, choliocystectomy, ovariectomy, and a fourth for breaking up of adhesions—without a thought, apparently, having been given to the kidney; and this in the face of marked bladder symptoms, which were explained to the patient as only a part of her nervousness, the few pus cells found in the urine having been ignored. Her pains were definitely of colic type, referred to the gall bladder region. Nephrectomy, removing a badly damaged tuberculous right kidney, brought complete relief from the abdominal pains. In another case of tuberculous kidney there had been appendectomy without relief; and in another, ovariectomy. All of these showed urinary findings, which, if investigation had been made to discover their source, would have obviated the errors in diagnosis. Pains and reflex symptoms, in renal tuberculosis, are rarely of decided or demanding type. They are usually vague in character, but accompanied by definite or prominent bladder symptoms. Positive urinary findings were present in every one of our cases. Yet, the average duration of symptoms has been eight years, the longest having been twenty-five years. These cases eventually gravitate to the urologist on account of the persistent annoying bladder symptoms. None of them would need to go undiagnosed if due consideration were only given to the bladder symptoms and to the abnormal urine findings.

RENAL CALCULUS

This is the one kidney disease in which it would be logical to expect definite symptomatology. Yet our histories show the classical symptom of renal colic present in only one-third of the cases, while symptoms involving both kidney and abdomen existed in 20 per cent. The symptoms were definitely abdominal in type in 24 per cent; in 12 per cent they were referred to the gall bladder; in 10 per cent to the appendix; and in 2 per cent to the epigastrium. In 18 per cent of them the symptoms were vague. In one case, the pain was definitely referred to the opposite kidney. Here again, we can have a serious kidney lesion which may be misinterpreted in fully half of the cases. The routine urine analysis also shows positive indications of kidney involvement in 97 per cent of cases of calculi. Incriminating evidence, however, that even this disease is not sufficiently considered when invoicing a patient's disabilities is offered by the fact that in this group symptoms of the trouble existed from two to thirty-five years, with an average of eleven years, before it was recognized, the patients having in the meantime been unsuccessfully treated for duodenal ulcer, chronic appendicitis, choliocystitis, lumbago, cystitis, or some other disease. The pains in this group are usually demanding, which explains why 16 per cent of them had been operated upon for other conditions, without removing the cause of the trouble.

It is somewhat different with ureteral calculi. Here we have abundant excuse for error, as, although 100 per cent of these patients have pain, mostly of sharp character, in 50 per cent the X-ray fails to show ureteral stones, and the urinary findings may be negative. The pains are abdominal in type in fully half these cases, which explains why 20 per cent of them are operated upon for other causes.

POLYCYSTIC KIDNEY

Of our three cases in this group, one was diagnosed as nephritis, and went to postmortem; one as pyelitis; and the third had been sent to the hospital for appendectomy. In this last case the physical findings and the appearance of the patient were certainly suggestive of appendicitis. The pain at McBurney's point was urgent. The onset had been with chill; the fever was 104 degrees; there was nausea and abdominal distention. The leucocyte count was 14,000. The local-

ized tenderness was not so decided as it usually is. The urine showed pus, blood cells and albumin. As the patient's condition was not critical, her surgeon ordered a cystoscopic examination, which showed bilateral polycystic kidney, with active Bacillus Coli infection of the right kidney. The pain, referred to the appendix region, was aggravated by distending the pelvis of the right kidney for making a pyelogram; and the symptoms quickly abated following pelvic lavage.

These cases are usually free from active symptoms, and are not recognized unless they are complicated by infection or the enlarged kidney discovered by palpation.

TUMORS OF THE KIDNEY

In this group the error is liable to be no diagnosis rather than a mistaken diagnosis, for a tumor may exist without any symptoms until it becomes of considerable size, unless it is complicated by the presence of calculi, which occurred in forty per cent of our series of cases. Hematuria was present in 45 per cent. In one case, a diagnosis of splenic tumor had been made by two good internists and concurred in by a surgeon who operated and found a normal spleen, but a retroperitoneal tumor. Another case was diagnosed tumor of the liver, on account of the physical findings by palpation. The most frequent error is a simple diagnosis of hematuria without any effort being made to determine its cause and source. It is unfortunate that we have not yet been awakened to a full appreciation of the significance of hematuria. Many of these patients are carried along for one to three years, with various explanations, the most frequent one being "strain." The patient's fears and anxieties are quieted, while the tumor steadily grows until metastasis develops, making surgical interference of no avail. Fifty per cent better results in the surgical treatment of renal tumor could be obtained if every case of hematuria were investigated at its first appearance, as a diagnosis of tumor can be accurately made by cystoscopic methods.

NEPHRITIS

The cases of nephritis which are sent to the urologist are those caused by obstruction at the bladder neck, which are usually of the so-called quiet prostatic type. One would not expect to find confusing abdominal symptoms in this group, yet fully 45 per cent of such cases are transferred to our department by the gastro-enterologist, to whom they were first assigned because of the prominent gastric symptoms, as nausea, vomiting, anorexia, dry mouth, etc. All of these cases had definite bladder symptoms, such as frequency, dribbling, nocturia, or overflow incontinence; but these symptoms were interpreted by the patient's family physician as a condition co-incident to his age, which must be accepted as fate and patiently endured. They were completely disassociated from his gastric symptoms. The removal of the obstruction or the establishment of perfect drainage was accompanied by relief of the gastric symptoms in every case; the nausea, vomiting and anorexia having been caused by the retained nitrogenous products which the kidneys were unable to filter out, and not by any specific gastric pathology.

STRICTURE OF URETER

Stricture of the ureter is a distinct disease entity which is recently being recognized because of the monumental work of Guy Hunner. It is in this group of cases that errors most frequently occur, because the symptoms are more often referred elsewhere than specific to the urinary organs; strictures of the lower ureter causing pains in the pelvis, groin and leg, accompanied by bladder irritation; those of the upper ureter causing symptoms in the upper abdomen. The urine is usually negative except for a few pus cells, and ordinary X-ray plates show no shadows indicating calculi. The pains and symptoms are often demanding, which explains why over half of these cases had been previously operated upon without relief of symptoms. These cases can be diagnosed only by cystoscopic examination, including the use of a bulb-pointed catheter, and the study of a uretero-pyelogram.

HYDRONEPHROSIS

This is another group in which the symptoms are easily misinterpreted, largely because of the lack of confirming evidence obtained from the X-ray and from urinary analysis. In the intermittent type, the cases are often interpreted as acute appendix or gall bladder infection; while those of the chronic type are diagnosed as chronic gastritis, colitis, neurastrenia, etc. Thirty-three and a third per cent of these cases had previously been operated upon without relief, and a still larger number treated over periods of two to twenty-seven years without the disease having been recognized. The

urine showed evidence suggestive of kidney involvement in only 28 per cent of the cases. This condition also can be positively determined only by cystoscopic methods of examination.

SUMMARY

It is evident that all diseases of the kidneys may present symptoms that are misleading. In fact, our records indicate that, even where the kidneys are actually involved, the symptoms more frequently point to intraperitoneal lesions than to the kidney itself. On the contrary, the majority of cases presenting the symptom of pain in the back, which is almost invariably supposed by the patient to mean kidney trouble, are not cases of renal disease, the pains being more often those of osteoarthritis, or reflexes from pelvic or colon disorders. Again, there are intraperitoneal lesions the pains of which are referred to the kidney.

While these facts are confusing, and prove the uncertainty of symptoms, yet we are not left hopelessly adrift, for we do possess diagnostic methods of reliability. The skilled urologist can ascertain, without much fear of contention, that a certain pain does or does not originate in the kidneys.

A cystoscopic examination is not the difficult ordeal it formerly was. It is quickly and painlessly done, and the information obtained makes it an essential feature of our diagnostic measures.

It should be remembered that the greatest number of mistakes are made in cases of ureteral stricture and of hydronephrosis. In these types of cases the symptoms are frequently referred, the urine and X-ray findings are often negative, and our only means of a positive diagnosis is by cystoscopic methods. The symptoms in these cases may be urgent, but the patient's condition is not critical, and no additional hazard is incurred by waiting for the special data to be obtained by a cystoscopic examination.

The mission of this paper, therefore, is to urge a more intimate relation of the internist and the general surgeon with the urologist, and to advise that the information which is available only by urological methods be secured:

(a) In every case of obscure abdominal pain not otherwise positively explained.

(b) In all cases with a history of hematuria.

(c) In every case where blood, pus, or albumen is found in the urine.

(d) In all cases of doubtful abdominal tumors.

If this is done, the kidney will be taken from its hidden position behind the peritoneum and brought out into the "lime light" as its record of disease demands, and the practical result will be a notable lessening of many patients' years of pain and in the number of fruitless operations.

PREMATURE AND STILL BIRTHS

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Total mortality exceeds that of any other period of life. It is estimated in other clinics that out of every four or five labors there has occurred one abortion. A similar statement can be obtained in regard to our clinic. There were 210 cases of abortions and 1,089 births. Then if the still births (55 cases) during the last year, and premature deaths (63 cases) were added it would increase the number considerably, and the proportion would be relatively higher—about one to three.

Premature or still births should be first of importance in the consideration of prenatal and neo natal deaths. "Ruge" reports of the women who have still births 83 per cent have repeated still births. Still births are due to syphilis either on the mother's or father's side. Peleire reports in 100 conceptions in syphilitic women, only 7 were alive a year later. In our series demonstrable syphilis was not a causative factor in early pregnancy of the 210 abortions. Only five women had demonstrable syphilis of the still births, premature and neo natal deaths. The question of taking Wassermann in the mother is of extreme value if positive preventive measures can be instituted and undoubtedly bring a healthy infant. If lues can be demonstrated at this time and treatment instituted neo natal deaths from lues can be reduced.

Syphilis may be transmitted from a syphilitic father direct to the ovum without infection of the mother. As the fetus grows the syphilitic toxin develops with its growth. The longer the time since the acquisition of the disease by the parent the less there is likely to be syphilis in the embroyo. There were no mothers who had early syphilis in this series. A number of factors showing probable syphilis are as follows: Symptoms-corcyza, eruptions, sadle nose, hydrocephalis, high cleft, conditions of liver, spleen, cartilages, etc. Tuberculosis was not demonstrable cause in our cases. This can then

be ruled as a cause for foetal or neo natal death. Various infectious diseases have been directly responsible for death of foetuses, pneumonia, scarlet fever, etc. Of our cases, nine had acute infectious diseases.

Non-infectious diseases are often transmitted to the foetus. This appears to occur at the same time in mother and foetus and transmitted from one to the other. Such conditions in the mother, such as chronic systemic conditions, chronic nervous conditions are directly transmittable to the foetus. Pyorrohea, various focal infections are also transmittable. Children have been born with rachitis in the most active stage. We had two such cases. This condition is dependent upon some unfavorable condition of the mother, such as undernourishment, living in poor hygienic conditions, etc. There were 16 mothers showing aforesaid symptoms.

General anasarca has occasionally been seen in new born infants which may be attributed to a general anasarca in mother. Two cases were reported of luetic obstruction of the umbilical vein. Spontaneous fractures in the utero and during delivery. This may be produced by external violence, or pathological foetal bones or to trauma during labor. The foetus, however, is well protected from external violence. There were two cases with fractures. High temperature in the mother is an attributable cause in the death of the foetus. Seven such cases. Strong emotion may have a direct effect on the foetus, but not as generally considered by the laity, who, when given birth to child with abnormalities can usually site some experience in the past directly attributable to the condition of the foetus.

Icterus gravidarum endangers the life of the foetus either by bringing on an abortion or first by destroying its life by poisonous action of the bile. We have one case on the floor now who in the sixth month was markedly icteric and upon Melser Lyon gall bladder drainage gradually improved, and has now delivered a full term normal infant. There were no other such cases.

Eclampsia—It has been estimated that about one-half of the children stillborn died after eclampsia. Our record shows three such cases.

Habitual death of the foetus There are women who in two or more successive pregnancies usually at the same period give birth to dead children. It is important to learn, if possible, the cause of repeated foetal death, for upon it depends the treatment adopted to secure the birth of a living child.

Chronic metritis and endometritis are considered frequent causes for interference with the development of the foetus.

Anaemia in a pregnant woman may cause fatality to the foetus. Three such cases are noted. The father suffering various chronic diseases, syphilis, diabetes, nephritis, may transmit a germ with insufficient vitality to further development of foetus to term.

Repeated Still Births—Nine were noted in our series. Of these, four had lues. It is, however, hard to exclude lues because the diagnosis from history or serological test is not conclusive, so our series from this viewpoint is probably incomplete.

The cause may be chronic endomitritis, cervicitis, secondary anaemia, etc., or chronic poisoning. Drugs, chemicals, morphine frequently given antepartum may be harmful to the infant. Preventive treatment may be instituted for lues, curetage of endomitritis, and improving the general well being of the patient. In case of cancer, nephritis, diabetes, the prognosis of the infant is necessarily grave.

The father's health if impaired should also be improved.

Other cause for stillborn or dead infants is trauma during delivery, either delayed delivery, forceps, etc. In our series fourteen cases died during delivery.

NOTE: These figures are based on a report of stillbirths occuring in the Minneapolis General Hospital.

WILL STERILIZATION DECREASE EPILEPSY?*

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It is proposed in this paper to examine the following question: "Would the sterilization of epileptics materially influence the number of persons afflicted with epilepsy in succeeding generations?" The provocation for such discussion is the inclusion of epileptics in the list of those who may be sterilized by law in several states. Also many states have laws forbidding the marriage of epileptics, which theoretically should have the same result as sterilization. There has been much activity in late years

*From the Clinic for Neurology, University Hospital, Ann Arbor, Michigan.

Read before the Detroit Neurological Society, June, 1925.

in the form of biologic and statistical studies of the defective element of our population. As a result we hear, and may read much of the new science of eugenics. Largely as a result of the efforts of the proponents of the eugenic idea, many states have enacted laws touching the control of mating, the segregation of the unfit during the reproductive period, and in many cases for their sterilization. We wish briefly to consider what justification can be adduced for including those persons afflicted with the syndrome known generally to the medical profession as epilepsy under the provisions of a sterilization law.

As a basis for our study we reviewed the histories of all cases diagnosed as epileptic in this clinic for the period, July 1, 1918 to July 1, 1924. During these six years there were seen 634 cases of epilepsy. Of this number 24 are rejected for our present purpose because of a faulty family history. The cause of this deficiency was usually due to inability of the patient to speak the English language, extreme youth of an unaccompanied patient, adoption as a baby, or feeblemindedness. There remain 607 cases with satisfactory family records. Of these, fifteen gave a history of epilepsy in either the father of mother. There was but one case with a history of epilepsy in both parents. *Therefore in this series of 607 cases of epilepsy the percentage incidence of the same disease in their parents is 2.4 per cent.*

Let us turn for a moment to the observations of others. Burr[1] in a study of 1,449 cases, found a history of epilepsy in the parents of 34 cases giving a percentage of 2.3 per cent. Thoms[2] found the direct transmission rate based on a study of 138 cases to be 5.8 per cent. He quotes Stuchliks figure of 4.1 per cent found upon a study of 176 cases.

Thoms carried his work still further and studied the children of 138 married epileptics. Among the 553 progeny, an average of four to a family, epilepsy was present in 1.8 per cent.

The sterilization of human beings purports to be a method whereby the propagation of undesirable individuals may be controlled. It takes away from the person sterilized what all agree is probably the most fundamental function of living species; i. e. reproduction. It must be assumed therefore that the act of reproduction on the part of the individual afflicted with any one of the diseases or abnormalities for which sterilization is said to be the remedy, would necessarily mean the reproduction of the disease itself. That is to say, directly inherited. Any other basis for sterilization would be indefensible and unscientific. The writer recognizes the interrelationship of the degenerative diseases. There can be no doubt as to the existence of defective human strains. We have purposely narrowed our previous observations regarding the parentage of our 607 cases of epilepsy down to the presence or absence of the same disease in the parents. The sterilization laws provide for the treatment of individuals, not families or particularly defective groups in wholesale fashion. The anticipated results must therefore be looked for from the standpoint of the interrupted function of the individual sterilized. He or she is brought before the proper authorities and recommended for sterilization usually for a definite single expression of the many degenerative diseases. It must be expected that sterilization of the prospective father or mother is going to exert a positive effect in reducing the incidence of the undesirable qualities he or she exhibits.

Our figures clearly point out the fallacy of any such assumption as applied to epilepsy. *They show that sterilization of persons with epilepsy would have reduced the number of cases seen in this clinic over a typical six-year period by only 15 cases, or 2.4 per cent.* This incidence is less than the case rate among the population at large for many non-infectious diseases of a constitutional type in which no question of heredity enters.

Here and there in the literature one finds evidence that the old idea of direct inheritance as a factor in the problem of epilepsy is losing adherents. Burr (loc. cit.) concluded that direct inheritance is relatively unimportant. Such an attitude is given substantial support by the figures related above. Let us be encouraged therefore to make more careful study of each case of epilepsy on its merits in a serious attempt to find the etiologic factors. Such efforts are bound to result in more rational therapy for the epileptic and eventual elucidation of an old problem.

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YOU CAN ILL AFFORD TO MISS THIS EXCEPTIONAL MEETING

"THOSE GOOD OLD TIMES," AS SEEN BY A PHYSICIAN

(PART III)

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TYPHUS FEVER

Any history of our immediate past in Europe is incomplete without a review of its great pests and a number of these will be discussed, beginning with typhus fever.

Typhus fever has an ancient record as a steadfast and awful companion of war, famine and misery. Hippocrates was familiar with it in classical Greece and left descriptions by which we can recognize this disease. Pericles probably died of it. Athens was devastated at one time by a pestilence which was either typhus or a pneumonic form of the plague.

In Rome at the height of her glory many epidemics of this disease occurred and were recorded by her historians.

In the Middle Ages it surely was working havoc, but it is harder to trace because the character of the records of those times are such that accurate descriptions are lacking.

At the siege of Granada in 1489, 17,000 of Ferdinand's soldiers died of a fever which was called "tabardillo," on account of its spots, and everywhere Spanish is spoken, typhus still goes by that name. From this time on records of its devastations become more frequent.

In four years (1550-1554), 1,000,000 people or more died of it in Tuscany. During this century it was present all over Europe.

During the sixteenth century typhus fever was so prevalent in the jails of England that it was known as jail fever, and it spread among court officers when prisoners were brought up for trial. This happened repeatedly and gave to court sessions the designation of "Black assizes." The first of these of which record is left occurred in Cambridge in the thirteenth year of the reign of Henry VIII (1522). The justices, bailiffs, gentlemen, and other persons in court were seized with a fever which proved fatal to many. The most notable report of "black assize" is that at Oxford in the twentieth year of the reign of Elizabeth (1577). The prisoner was Roland Jenks, a bookbinder and a Roman Catholic, who was charged with treason to the state and profanity of the Protestant religion. He was tried and sentenced to lose his ears. The trial was held at Oxford Castle, July 4. With him several other prisoners were brought into court during the course of the trial. The chronicle states that an "infectious damp of breath" spread throughout the room. "Above 600 sickened in one night; and the day after, the infectious air, being carried into the next village, sickened there more than 100 more." By the twelfth of August, 510 persons had perished. "The infection arose from the nasty and pestilential smell of the prisoners when they came out of the jail, two or three of whom had died a few days before the assize began." Among those who contracted the disease there was marked loss of appetite, headache, sleeplessness, loss of memory, deafness and delirium, so that the victims behaved like mad men. The Catholics saw in this the scourge of God for the unjust punishment of Roland Jenks, and the Protestant attributed it to the "diabolical machinations" of the Papists.

During the Thirty Years War in the seventeenth century, the central part of Europe was made desolate by war and pestilences, the chief of which was typhus. England was called one vast hospital in 1658 because of it.

In Ireland it was known as "Irish ague" and Erin was afflicted by one epidemic after another as fast as susceptible generations could be raised. These epidemics adding to the poverty and oppression have left this Isle with a population of only one-half what it had been prior to this period.

During a period of 25 years, 550 physicians of the 1,230 attending inmates in their almshouses died of typhus! Such a job was surely a superhazardous occupation in those days.

An account of one epidemic of typhus in Ireland is much like all others. Nothing to eat but potatoes; and the adult would devour ten or more pounds of these tubers each day in the vain attempt to supply his body cells with the minimum amount of protein demanded. Driven by hunger to sell the cow, furniture, and even his clothing, the Irishman and his family huddled together in rags and filth, while vermin fed on their bodies and simultaneously innoculated them with typhus. Murchison says:

"In Dublin, the servants of the upper classes were not allowed potatoes, and bread was portioned out to them sparingly, few persons had more than a quarter loaf in the week. The poor pawned their clothes, and even their bedding for money to pur-

chase food, and, as a natural consequence, it was common for several members of one family to sleep in the same bed."

According to O'Connell, 80,000 Irish died in 1740-1741 of famine and spotted fever, and about one-fifth of the population of Munster perished. Writing of the nineteenth century epidemic of typhus in Ireland, Murchison says:

"Extreme distress ensued. The four pound loaf was sold in Dublin in 1817 for 1s, 9d; and the poor throughout Ireland are described as wandering about the country, gathering nettles, wild mustard, and other weeds to satisfy the cravings of hunger.—The probable population of Ireland at this time was in round numbers, 6,000,000, and the number of sick was estimated at 737,000, or about one-eighth. In Dublin alone there were about 70,000 cases, making about one-third the inhabitants."

Of the same epidemic Carleton wrote:

"People collected at the larger dairy farms waiting for the cattle to be blooded, so that they might take home some of the blood to eat and mix with a little oatmeal. The want of fuel caused the pot to be set aside, windows and crevices to be stopped, washing of clothes and persons to cease, and the inmates of a cabin to huddle together for warmth. This was far from the normal state of the cottages or even the cabins, but cold and hunger made their inmates apathetic. Admitted later to the hospitals for fever, they were found bronzed with dirt, their hair full of vermin, and their ragged clothes so foul and rotten, that it was more economical to destroy them and replace them than to clean them."

The roads were filled with infected vagrants and many a poor cotter not only divided what he had in alms, but by giving to the wanderer introduced the infection into his humble home, while "the dogs of of the gentry kept all beggars from their gates."

Typhus was always a disease of the poor. Liverpool in 1790 was the second city in England with 56,000 people. Seven thousand of these lived in cellars and 9,000 in rear houses opening on small dark courts with narrow passages into the streets. In ten years they had 31,243 cases of typhus.

So it went all over Europe owing to the crowded, dirty, poverty stricken manner in which the most of the people were forced to live, typhus and wretchedness went hand in hand.

"Taking Europe as a whole, the period from about 1670 to about 1850 may be considered as the typhus age. This does not mean that this disease did not exist before this period or that it had ceased with the close of it. Neither assumption would be true, but before that time typhus was overshadowed by the more deadly Plague. Still, it is a question whether, even at that time, typhus did not kill more than the plague. The former was constantly present, while the latter lapsed from time to time, apparently on account of lack of susceptible material. Even during the typhus age, other deadly infections, as smallpox, tuberculosis, diphtheria, etc., aided in rolling up heavy mortality lists. A complete history of typhus would be a valuable contribution to human knowledge and should be studied by statesmen and all interested in the welfare of the race, as well as by physicians. There is certainly one great lesson which it teaches, and that is, that the health conditions of the poor are of interest to all. No nation can be great so long as its laboring classes live under unhygenic conditions."

In the United States in recent years it has been found in the poorer quarters of New York City in mild form and in Mexico it still lingers on. Mexican laborers bring it at times to the western states, but the vigilance of the health authorities wipes it out in a short time. We have had two recognized cases in Flint.

In 1909, Nicolle, a French army surgeon in Algiers, proved that typhus was carried only by the body louse. This was rapidly confirmed by others. Six Americans studied the disease in Mexico and of these three were accidentally bitten by infected lice they were observing and contracted the disease; two of them, Ricketts and Coneff, died of it.

Knowing how typhus is spread, its reputation as a disease of war, famine and misery is explained and the reasons for the various names by which it has been known become tragically clear. It has been called, hospital fever, jail fever, camp fever, ship fever, Irish ague, pauper's disease, etc. These names alone suggest dirt and vermin.

Knowing how this disease is conveyed from person to person, its prevention at once becomes a problem of eradication of the louse.

In 1915, during the World War, typhus again assumed epidemic proportions in Servia, more than 150,000 of the people dying from it in that year. At times as many as 9,000 died each day.

The Allies financed a great delousing campaign in this country which wiped it out and typhus ceased to be a menace in this war and for all time to come in civilized communities—and another of the great conquests of scientific medicine was achieved.

THE PLAGUE, THE PEST, BLACK DEATH

Among the great pandemics that swept over the civilized world repeatedly in the Middle Ages was the great Black Plague.

It is a highly infectious disease spreading with great rapidity and to which few are immune.

It occurs in two forms, the bubonic and the pneumonic. The former is accompanied by great swellings in the glands of the groins and general prostration while the latter affects primarily the lungs with a watery sputum and severe general symptoms leading to death in two or three days. Few survive this form, while the mortality of the bubonic type is not so great.

The early civilization of Egypt was advanced for those times, but during the captivity of the Children of Israel, that it was unhealthy, is made certain by those passages in the Bible threatening the chosen people with the diseases of Egypt if they neglected or violated the laws.

Since that time this country has been notorious for its plagues. Jehovah, so the First Book of Samuel states, punished the Philistines by sending a furious plague among them, which smote them with "Emerods," bubonic swellings in the groins. The Philistines duly terrified sent back the stolen Ark of the Covenant filled with golden images of emerods and rats "that mar the land."

In Greece certain descriptions seem to suggest it as the great Athenian Plague described by Thucydides.

In Italy it is known to have existed in the first century after Christ.

Gibbons in his history of the Roman Empire says: "If a man were called upon to fix the period in the history of the world during which the condition of the human race was most happy and prosperous, he would without hesitation, name that which elapsed from the death of Domitian to the accession of Commodus" (96 to 180 A. D.)

He has only in view great leaders, great wars, good governments, but Tacitus writing of the epidemic of 68 A. D. says: "Houses were filled with dead bodies and the streets with funerals; neither age nor sex was exempt; slaves and plebians were suddenly taken off, amidst lamentations of their wives and children, who, while they assisted the sick or mourned the dead, were seized with the disease, and perishing, were burned on the same funeral pyre. To the knights and senators the disease was less mortal, though these also suffered in the common calamity."

In the year 80 A. D. deaths in Rome reached 10,000 a day with a population of more than 1,000,000.

Rufus of Ephesus, living about 100 A. D. left a description of the epidemic of his time so clear as to make certain it was the Black Death.

They had it in 102, 107 and 117 A. D. In 167 A. D. it was very severe and hung on many years. In 173, 175 and 178 it was particularly bad, wiping out at one time nearly the whole Roman army.

In Scotland it carried off 150,000 between 88 and 92 A. D., not less than one-quarter of the people.

Marcus Aurelius wrote beautifully of his time, but his attendant and historian wrote of less high-faluting things as follows: "There was no respite from military operations. War raged in the east, in Illyricum, in Italy and in Gaul, earthquakes with destruction of cities, inundations of rivers, frequent plagues, a species of locust ravaging the fields; in short every calamity that could be conceived to afflict and torment man, scourged the human race during his administration."

In the reign of Justinian a great overwhelming cloud of black death followed commerce to Italy and spread from there throughout all Europe reaching England 100 years later. Gibbons says of this epidemic "In time, its malignancy was abated and dispersed; the disease alternately languished and revived, but it was not till the end of a calamitous period of 52 years, that mankind recovered it's health, and the air resumed its pure and salubrious quality. No facts have been preserved to sustain an account, or even a conjecture, of the numbers that perished in this extraordinary mortality. I only find that during three months, four and at length ten thousand persons died each day at Constantinople; that many cities of the east were left vacant, and that in several districts of Italy, the harvest and vintage withered on the ground. The triple scourge of war, pestilence and famine afflicted the subjects of Justinian, and his reign is disgraced by a visible decrease of the human species, which has never been

replaced in some of the fairest countries of the globe."

After this for a thousand years and more it repeated its periodic harvests as often as a new and susceptible generation appeared. Every generation had to withstand its ravages.

It has been stated that Rome was reduced by the plague epidemic of 1348 to a population of 20,000.

Bocaccio wrote of the plague in Florence that: "Such was the cruelty of Heaven and perhaps of men, that between March and July following, it is supposed and made pretty certain, that upwards of 100,000 souls perished in the city only, whereas, before that calamity, it was not supposed to have contained so many inhabitants. What magnificent dwellings, what noble palaces were then depopulated to the last person, what families extinct, what riches and vast possessions left, and no known heir to inherit, what numbers of both sexes in the prime and vigor of youth—who in the morning Galen, Hippocrates or Esculapius himself, would have declared in perfect health—after dining heartily, with their friends here have supped with their departed friends in the other world."

The Friar of Kilkenny in the fourteenth century began a record of the pest which was unfinished by his own death which is most pathetically tragic: "I friar, John Clyn, of the order of Friars Minor and of the covenant of Kilkenny, wrote in this book those notable things which happened in my times, which I saw with my eyes, or which I learned from persons worthy of credit. And lest these things worthy of remembrance should perish with time and fall away from the memory of those who are to come after us, I, seeing these many evils, and the whole world lying, as it were in the wicked one. among the dead, awaiting death—as I have truly heard and examined, so have I reduced things to writing; and lest the writing should perish with the writer, and the work fail altogether with the workman, I leave parchment for continuing the work, if haply any man survive, and any of the race of Adam escape this pestilence and continue the work I have commenced."

Nankivell wrote of the plague in England in the fourteenth century as follows: "The distribution of the mortality was various. Those of high rank were not greatly affected, but of the common people an incalculable number died, and very many of the clergy, nuns, and friars. The religious houses seem especially to have been severely visited by the black death, and many of them were closed and left deserted. The records of mortality in these days were indifferently kept, and it is most difficult to arrive with any accuracy at an estimate of the number of those who died of the plague. Contemporary writers vary in their estimates from one-fifth to nine-tenths of the total population as the extent of the mortality, but it is probable that between half and two-thirds would be a more accurate estimation. In other words the death rate in England during the years of the black death was somewhere near 600 per thousand persons living! It is probable that about 20,000 persons died in London out of an estimated population of 40,000. In Leicester there were about 1,500 deaths among a population of under 4,000 persons. In Bodmin there were the same number of deaths out of a population of some 3,000 people. Norwich had, perhaps, 17,000 deaths out of a population which was probably about 25,000, although in the borough records the mortality was stated to be over 57,000 which is manifestly exaggerated. Yoarmouth lost 7,000 of its 12,000 people. As far as we can read from the scarce records, mortality of a like nature was present through the length and breadth of the land. Business was dislocated; cattle and sheep were left to wander, for there was no one to care for them, and a murrain occurred among the beasts. As half the labor in the country was dead, wages rose to an unprecedented height, and, according to Creighton, many villeins and bondsmen took the opportunity of escaping to the towns or to distant manors, where they would make their own terms. The black death was, therefore, the last nail in the coffin of the old feudal system." In all Europe in the fourteenth century it is estimated one-fourth of the people perished from this pestilence.

In 1665, in London alone, it killed about 70,000 people of a population of 160,000 left of the normal number of 450,000; the rest having fled to the country to escape it if possible. Defoe has left a graphic and very readable description of this.

The great fire of London in the following year checked it and relieved England of the pest which it had suffered from for over 300 years. Since then pandemics in Europe no longer occurred.

During all this time it flourished in Asia, no doubt its original home, and up to this day it still carries on its deadly work there

from which it threatens the rest of the world.

It would be unfair to stop with the past of this disease without studying its nature as it is now known in order to understand the why of this awful history of the greatest scourge men have known.

We know that it is a disease of rats and allied rodents of Siberia, Mongolia and other portions of Asia. Without rats there would be no plague of men. But there is more than that to the story. The rats do not give it to men directly. There is a more subtle method.

Rats are nearly always badly flea infested and these parasites living on the rats are infected by the germs of this disease which to them is innocuous. Rat fleas have a discriminating taste and prefer rat blood to human blood so that ordinarily men are not bothered by this particular type. But when the pest strikes the rats and they die "like rats," the fleas in desperation for food will bite and suck the blood of the distasteful man, incidentally, without malice, and unintentionally wiping off his boring tools the germs which causes the bubonic type of this disease.

The flea true to the old song "has no wings at all" and of necessity travels by jumps. The rat flea can jump no more than a foot high so that he feeds on the only places exposed and within his range, the human legs.

These facts explain so much to us of the tragic recitals of the past.

The epidemics of plague were confined to barefoot men. In the 16th century when shoes and stockings began to be more generally worn in Europe this pest began to loose ground excepting in barefooted Asia.

The emerods of Biblical story are the swollen lymphatic traps placed in the groin to intercept and kill all infections from the legs which is usually too much for them to do in this disease.

"So simply and literally true is this that the mere wearing of high boots or leggings, higher than the utmost leap of the migratory infected flea of the plague-slain rat—eleven inches—is an absolute preventative and protection. While this "extinct" disease was sweeping away eight million lives in India alone in the first ten years of this century, English Tommies sent to clean out plague-smitten houses and carry out and bury the dead never caught a single case of the pest, though native regiments detailed for the same service fell victims in hundreds and had to be withdrawn. Reason why? The Tommies went at their appalling task with boot tops pulled up and leggings tightly strapped; the native troops, in spite of order to the contrary, stripped off their boots and putties and went at it barefoot. Stop the infected rat flea from leaping onto bare human feet and legs and biting or getting crushed there and you stop the plague."

The frequent observation made by the old writers that rats during such epidemics are so plentiful as to "mar the land" does not mean that they are more numerous than usual, but that they die in the open and are seen by the astonished natives. They must so die to start an epidemic.

It explains why the disease travels mostly by ship routs for ships have always been the great carriers of tourist rats—while they are less apt to take passage on caravan camel trains.

In addition to this type of the disease the pneumonic form has struck again and again in the winter months like a veritable halocust in destruction. It kills about 98 per cent of its victims. They sicken in two or three days after exposure and in a day or two more are dead or dying. They cough incessantly a thin, watery, blood stained fluid, highly contagious. And these facts also explain so much. During a season of plague the winter drove the poor poverty stricken masses of men indoors where they lived, ate and slept in one room next to the cow stable and store house of grain and hay. Some one would be stricken with plague which his "emerods" would not filter out, he would get it in his lungs and then cough it into the face of his associates of necessity so close and they, too, would die like rats while some would flee to other homes to escape it, only to spread it through the community.

These epidemics of necessity did not often occur in summer when folks, poor as they were, lived out doors.

In the winters of 1910-11 northern Mongolia was swept with this pneumonic type which was spreading into China, threatening its millions. The Chinese government asked for aid from the other powers to stem it and several nations sent scientists for this purpose. We sent two army laboratory men.

This is what they found—an epidemic following the Trans-Siberian Railroad into northern China. The passengers were mostly coolies who had been hunting the marmots of Siberia and were returning home.

These marmots are often found dead.

The natives don't touch a sick or dead marmot, but the inexperienced coolies would skin them any time. The marmots had black plague, some of the coolies got it and then, when the return trip was started, these men gathered at the stations, crowded into box cars so thickly that they had to take turns at sleeping and standing and when a train was unfortunate enough to have an infected man aboard, he sprayed the rest and they were dropped off sick along the right of way to infect others as they died.

These scientists stopped this epidemic after thousands had died just as one stops the water flow by turning off the spigot. They had the Chinese government use its army to stop all travelers from infected districts, put each in a pup tent alone and if he were not sick or dead in three or four days he could be sent on in safety.

The plague now and then comes to us and all other nations with commerce, but our modern public health services at once stamp it out and we live in security and peace unknowing of the vigilant care protecting us.

MALARIA

Also known as ague; fever and ague; paludism; marsh fever; intermittent fever.

Malaria is an acute disease of rapid course and high fatality at times, but usually subsiding into a prolonged chronic illness characterized by anemia, general physical weakness and mental lethargy. It lasts for months and may return in an individual for years. The patient has severe chills followed by a high fever coming at very regular intervals.

The name malaria is from Italian and means bad air. Why it obtained this name is easily understood since we know its mode of propagation. We know that no people can thrive in localities heavily infected with uncontrolled malaria and that its debilitating effects will prevent any great achievements needing energy and intelligence. Their blood is thinned and they are reduced by the fever to a low stage of efficiency.

Egypt, for some unknown reason, is not malarious now and no records are found showing it ever was experienced there to any great degree.

Today the Euphrates and Tigris valleys suffer greatly from malaria and have for many years. So far no accounts of it are found in the early history of the great civilizations once established there, but it must have been there early and may well have had something to do with the decadence of their peoples and their glories.

In the fifth century B. C., Greece had developed the most remarkable civilization the world had known in knowledge, in art and in philosophy. Then quickly in the fourth century B. C. this petered out. There came a remarkable change in the Greek character. A different type of individuals replaced the ones who had developed this culture and to this day there has been no rekindling of the fire of that ancient glory.

Professor Jones of Cambridge, England, has studied this time carefully and concludes that this rapid and tremendous deterioration was due largely if not entirely to malaria itself which became evident at this time.

There are no records of this disease in Greece before or at the height of its civilization. It is not mentioned where we would expect it by Homer, Hesiod, Herodatus or Thucydides.

But Aristophanes, about 422 B. C., first mentions it in no uncertain manner. All subsequent writers also describe it. Hippocrates, the great physician, in the fifth century describes it and ever since Greece has suffered from its weakening attacks.

Greece is very marshy in places and its agricultural plains are very malarious. In 1905, out of 2,500,000 people, about 1,000,000 were found to have it and 6,000 died of it. One-half of the children of the Copaic plain had the parasites in their blood in June which is very early for it to be severe.

Italy was free from the disease until Hannibal's African soldiers brought it in during the second Punic War. It became widespread in 200 B. C. and has been there ever since.

Just south of Rome are the Pontine marshes growing wild, uninhabited and uninhabitable because of malaria. This large fertile plain is flooded by the spring rains and it is over laid annually by a deposit of rich soil much as the Nile valley. The Italian government has tried to drain its marshes and utilize its great fertility as it should be. Some of the early popes tried to make it productive, but they have always failed because malaria killed or drove away in weakness and despair the pioneers.

But prior to the entrance of malaria into Italy this same place was the great garden of that country. With its 150,000 acres it fed a Rome of over a million people; it supported 23 thriving villages; and there is no doubt because of the poor transportation of the times, it made possible that glorious

Rome. But its people sickened, they gradually abandoned it, the stones of the homes were covered with silt or carted away to the livable hills and there is nothing remaining to show that once one of the world's great gardens grew in its place. Rome was deprived of its granary, its people of their vitality and this work of the fever and ague had its part in wrecking a great Empire.

Modern science has pronounced with no uncertain voice its judgment upon malaria as a factor in morality. "The effect of the disease upon the people is to unfit them for labor, to cause loss of time, loss of money, and generally to diminish their producing powers, whilst at the same time the race, if left to itself tends towards moral and physical degeneration; perhaps the most incapacitating disease to which man is liable."

"Now it has been shown that malaria was endemic in Rome, probably from the time of Plautus and Terence (second century B.C.) Hence it is practically certain that the city population was gradually deteriorating. But from economic causes Rome was growing more and more congested ever since the second Punic War. The results were a sparsely populated country and a degraded rabble in the metropolis. Statesmen, perceiving the effect but not the cause, did all they could to bring back the people to the land. But economic causes were against them; the deterioration in the national character was against them, and the continuous civil wars of the first century B. C. were against them. The waste land increased, in spite of ineffectual attempts to reclaim it. The Roman people became a tainted and debased folk, penned up within the walls of the city. New blood was constantly being introduced, during the early Empire, from healthier and sounder races. Lucan, Seneca, Martial, and Quintilian, were all Spaniards. This fresh infusion was itself infected in time, and the Roman Empire at last fell to pieces. It is not pretended that malaria was the sole cause; but it is certain that the disease gave full scope to other disintegrating factors."

So much for its early history.

Efforts to understand this disease have been made since it first was known. Mighty shrewd guesses were made as to its cause and spread, but lacking the means of scientific proof they remained interesting guesses and not activating facts.

Hippocrates (400 B. C.) observed that those who lived in low, marshy districts are neither tall nor well built, but dark colored, bilious, and wanting in courage and endurance.

Varre (100 B. C.) stated that in marshes animals which are too small be seen, grew and enter the mouth or nose and cause sickness.

At the same time Calumella stated that bogs breed insects armed with stings and pestilential swimming and creeping things from which came obscure diseases.

Cicero and Seneca of old Rome said that paludism was depopulating certain Italian districts.

It was observed in these early times that exposures to swamp air at night was particularly dangerous. That up in the hills one was safe, that up three stories from the ground one was safe. That in cold weather malaria did not spread.

In 1640 the Countess d'El Chinchon, wife of a viceroy in Peru, was cured of malaria by a preparation made from the bark of a tree growing in that country.

She sent some home to Europe and the Jesuits for a long time imported it and sold it to cure diseases. It was long known as Jesuit's powder.

It was a specific cure for malaria, but was used in every kind of fever and failed so often to help the victims that its efficiency was long disputed.

Lancisi in 1717 stated his belief that there were minute living things which caused the disease and no doubt others expressed the same belief.

In our own country Dr. Nott, of Mobile, in 1843 and Dr. King, of Washington, in 1883, advanced the theory that malaria was spread by mosquitoes.

All investigations, such as drinking marsh water, made to discover its cause or mode of spread failed until 1878 when Laveran, a French army surgeon in Algeria, discovered in malarial patients a little pigmented parasite in their blood cells. Further investigation found this to be the cause of the disease.

In 1895 Ross, a British army surgeon in India, after trying in many ways to cause this disease found that he could do so with anopheles mosquitoes infected by biting a previous victim.

Study of this particular mosquito showed that it did not bit or fly in bright daytime or the dark night. It is active for one-half to one hour in the evening twilight or the early dawn.

That the male cannot bite through a man's

skin. It is the female of the species who is the culprit.

That they live ordinarily on plant food, but the female craves blood to help nurture her eggs. That if given an equal opportunity to bit a horse, dog or a man she prefers the last always.

That after she has sucked in the malarial parasite with her feast of blood they undergo a certain cycle of change to produce spores and these she can then, without intention or malice, inject in the next on whom she dines. These spores then undergo another change and crawl into the patient's blood cells which they destroy as they grow and multiply.

These facts explain all the old observations and the knowledge of them has made possible the reclaiming of great portions of the earth for civilization's needs.

It is universally conceded now that the French failed to dig a Panama Canal because they could not survive the mosquito and its diseases—yellow fever, malaria and break bone fever.

Our own Colonel Gorgas, knowing that these diseases were due to the mosquito and knowing the mosquito better than it knew itself, cleaned them all out so well that what was once an impossible undertaking for a white man became a sort of a health picnic affair whose participants were better off than in their own homes so far as these risks were concerned.

And the present Italian government with quinine and mosquito squads expects to farm again its abandoned gardens.

But a few days ago the Department of Health of the Government of Palestine made its Annual Report which was abstracted in the London Lancet.

It is very illuminating for it keys up so well with the past.

Palestine has stood still for ages. Its people have lived as did their forefathers for hundreds of years. Since the war the efforts at its reclamation have disclosed a great malarial history.

The Health Commission found that it contained many marshes and these were uninhabitable because of malaria. That much fertile land had been irrigated and abandoned because of malaria. That if a new tract was opened up by irrigation and cultivation it would after a short time go back to its wild state because of malaria.

The plague of mosquitoes follows irrigation channels and pools just as it does the natural marshes and now they have found they can stop it all and make available the many idle tracts of fertile soil.

What an insight that gives us of the past history of the Euphrates and Tigris valleys. Great populations once lived in the region of these plains. Large cities grew up along its rivers and one of the earliest civilizations developed there. Its peoples were aggressive, original and advanced as only a virile people can. This all was made possible by the sustenance given by immense irrigation works. These still can be traced and engineers have always said it would be feasible to bring back the verdure of the ancient times by again rebuilding and utilizing the floors of waters now wasted.

Any start made was soon given up because of the unhealthy conditions which were found. Malaria killed the old civilization and till now has prevented a new arising on the ruins because they could not raise their own food under livable conditions.

The success of Palestine may lead to a realization of the engineers dream of a restoration of productive fields and a new life where only scattered nomads and their villages now exist in Mesopotamia.

NOTE:—Physicians should read the history of epidemic diseases in Vaughan's "Epidemiology and Public Health," where the above outline was obtained.

To be Concluded in October Journal

CLINICAL CASE REPORTS

J. J. HOLES, M. D.
BATTLE CREEK, MICH.

Mr. F., age 42. Night worker in a food factory. Referred for urinary disturbances by a public clinic. Urine found to contain puss, bacteria and red blood cells. Patient was nervous and unable to sleep well. Slight loss of weight during last few months. Wassermann, both blood and spinal fluid, being 4 plus, we ignored bladder conditions temporarily; but pursued a vigorous anti-syphilitic treatment. Urine began to clear after first treatment and marked general improvement followed. Sixty days later cystoscope showed bladder walls normal except a well defined apparently healed oval ulcer, size of dime at base of trigome. Now after two years there is no urinary disturbance, though he still has a plus 2-3 Wassermann. There are no neuro-spinal symptoms.

Male, age 37, cutter and manager of tailor shop. Married, good moral character, cleanly habits. Presented profuse purulent discharge of six week's duration from both nostrils. A nose specialist had treated him and also performed some operation with no improvement. Microscope revealed Neisseriam infection, which cleared up under mild nasal irrigation and vaccines.

ONE WOULD HAVE TO TRAVEL FAR TO HEAR THESE DISTINGUISHED MEN

Public Health Activities

Edited By

MICHIGAN DEPARTMENT OF HEALTH

THE STATUS OF THE KAHN PRECIPITATION TEST AS AN AID TO THE DIAGNOSIS OF SYPHILIS

For more than three years Michigan physicians have been receiving reports of blood specimens sent in for the serological diagnosis of syphilis which gave the Wassermann test in parallel with the precipitation test devised by Dr. Kahn. The new and simple precipitation procedure has demonstrated that it is just as accurate and dependable as the old Wassermann test in the hands of trained observers.

There now has been 156,000 specimens of blood examined by both methods in the Michigan Department of Health laboratory. Surprising as it may seem, there has been 99.5 per cent agreement between the two tests. Five-tenths of one per cent disagreement is about equally divided between the Wassermann and precipitation procedures. Apparently the precipitation test is very slightly more sensitive in treated cases than the Wassermann test.

Supplementing the findings of the Michigan state laboratory, other observers report favorably on the test.

Keim and Wile of the Department of Dermatology and Syphilology of the University of Michigan Medical School, in a preliminary report in the Jour. A. M. A., LXXIX, 870, 1922, conclude from a comparison of clinical and laboratory data in 350 carefully selected cases that the Kahn precipitation test compares favorably in sensitiveness with the Wassermann reaction. Keim, in a more extended study of 1,000 cases, Am. Jour. Syph. VIII, 323, 1924, and in association with Kahn (Arch. Derm. and Syph., X, 722, 1924) of 3,600 cases including one thousand cases of neuro-syphilis, comes to the same conclusion.

Schueren of the Detroit City Health Department Laboratory, in the papers of the Michigan Academy of Science, 1924, reports 2,024 serum examinations in which there is practical check between the Kahn and Wassermann results in 95.13 per cent of the tests. The report concludes: "The test according to our findings gives evidence of being specific for syphilis and appears to be slightly more sensitive than the Wassermann test."

Fox and Sanderson of the Medical School of Yale University report 1,000 serum examinations (915 patients) in the Am. Jour. Syph., VII, 687, 1923. They found agreement between the Kahn and Wassermann results in 89.6 per cent of the tests.

Detweiler, of the public health laboratory located at the University of Toronto, Department of Medicine, has made two reports on his results with the Kahn test: Jour. A. M. A., LXXXI, 815, 1923, and The Public Health Journal of Canada, October, 1923. He reports 2,126 comparative tests in which the Kahn and Wassermann results agree in 94.8 per cent of the examinations.

Ide and Smith of Ann Arbor report on examinations of 2,165 serums from the University of Michigan Hospital and various asylums of the state. They found practical agreement between the Kahn and Wassermann tests in about 98 per cent of the examinations. They state, "A point particularly in favor of the Kahn reaction is that anticomplementary serums give no difficulty with it." Their report is found in the Arch. Derm. and Syph. VI, 770. 1922.

Boas of the State Serum Institute at Copenhagen, Denmark, in a paper in the Dermatalogischen Zeitschrift, XLIII, 1924, reports a check between the Kahn and Wassermann tests in 91 per cent of 1,403 examinations.

Pancotto of Bologna, Italy, reports in the Giornale di Clinica Medica, Fasc I, 1925, on 500 comparative Kahn and Wassermann tests with a check between the two tests of 98.32 per cent.

Wilson and Nedley of the New York City Health Department in a study of 750 cases, Jour. Lab. and Clin. Med., IX, July, 1924, report that their results "are corroborative evidence of the claims made by Kahn and others for that test."

Owen and Cope of Detroit, Michigan, in the Jour. of Mich. State Med. Soc., Feb. 1925, report 90.5 per cent diagnostic check between the Kahn and Wassermann tests in 500 comparative examinations.

Kolmer of Philadelphia writes in a per-

sonal communication that in a comparative study of his complement fixation test with the Kahn prescipitation test: "The results were more gratifying in that both tests checked remarkably well not only with each other, but what is far more important, with the clinical diagnosis and expectancies."

Rubinstein and Gauran in the Bulletin de la Societe Francaise de Dermatologie et de Syphiligraphie report a comparative study of the Kahn and Wassermann tests in 639 cases with a 90 per cent agreement.

Blackshear, in the Military Surgeon, LV., 662, November, 1924, in a comparative study of Wassermann and Kahn tests concludes: "The obvious advantage of the Kahn is its extreme simplicity and the ease with which it can be interpreted. A still greater advantage is the probability of its being a more positive test."

Dudgeon from the County Mental Hospital, Wittingham, Lancs., England, in a paper published in The Lancet, II, 599, 1924, reports a study of bloods from especially selected cases of general paralysis and concludes that the Kahn test "is a good confirmatory test and an excellent routine test for an institution."

Holmes of Washington University, St. Louis, Mo., Jour. A. M. A., LXXXI, 294, 1923, reports 90.4 per cent agreement between Kahn and Wassermann results in 1,000 examinations.

Havens and Taylor of the State Department of Health Laboratory, Alabama, Am. Jour. Public Health, April, 1923, report 1,395 comparative Kahn and Wassermann examinations and find practical agreement in 92.7 per cent of the tests.

Rockstraw and Bent of the College of Physicians and Surgeons of Columbia University in the Jour. Lab. and Clin. Med., IX, 634, 1924, report 1,022 comparative examinations in which the Kahn and Wassermann tests check in 96.2 per cent of cases. They say: "The most interesting point observed was that in a number of cases the Wassermann reaction became negative while the Kahn persisted, a factor which might be of importance in deciding on cessation of treatment."

Sheppe of the Ohio Valley General Hospital, Wheeling, W. Va., in the West Virginia Medical Jour., December, 1924, writes of his experience with 2,000 comparative Kahn and Wassermann examinations in which he found a check of 98 per cent. Regarding the specificity of the Kahn test he says: "We have not observed a single strongly positive reaction in a case which was not proven to be syphilitic."

Dulaney of the University of Missouri, in the Am. Jour. Pub. Health, XIII, 472, 1923, reports 87.8 per cent agreement between the Kahn and Wassermann tests in 900 comparative examinations.

Levin, director of the laboratory of the Oregon State Board of Health, writes of his results with the Kahn test in Northwest Medicine, December. 1924. Parallel Kahn and Wassermann tests made on 2,542 blood specimens submitted to the laboratory showed practical agreement in 94.6 per cent of cases. He found the Kahn test more sensitive in treated cases. He concludes: "Because of its simplicity, specificity and high degree of accuracy, the Kahn precipitin test should be adopted as a routine test in the diagnosis and treatment of syphilis, and should be supplementary to the Wassermann test."

Redfield from the Jefferson Hospital, Roanoke, Va., Am. Jour. Syph., IX, April, 1925, reports his findings in 2,000 examinations and states that the Kahn test is more sensitive than the Wassermann, particularly in early primaries and in cases following treatment.

Willet of the St. Louis Health Department reports a study of 1,400 cases in the Jour. Missouri Med. Association, May, 1925. He found 95 per cent agreement between the results with the Kahn and Wassermann tests. He states that he found the Kahn test more sensitive in tertiary lues, apparently in cases that had been under treatment.

Parham and Behrens of the Medical Department of the United States Navy tested the value of the Kahn test on board ship, U. S. Naval Med. Bulletin, XXII, 23, 1925. In the series of tests reported they food agreement between the Kahn and Noguchi tests in 96.8 per cent of cases. They state: "We feel justified in the conclusion that the precipitin test is both reliable and delicate." —C.C.Y.

A SURVEY TO DETERMINE THE EXTENT OF THE USE OF IODIZED SALT

To determine how extensively iodized salt is being used throughout the state, a survey was recently undertaken by the Michigan Department of Health covering six representative localities. While returns are still incomplete, two of the counties not having sent in their cards, a preliminary report gives interesting data.

The four counties originally surveyed by

Department physicians for thyroid enlargement—Wexford, Midland, Houghton and Macomb—were chosen, and two towns, Mt. Pleasant, in the central part of the state, and Dowagiac in the southwestern section. Roscommon County was later substituted for Houghton when the School Commissioner of the latter county wrote that while he was very willing to co-operate, he felt that the county had too large a percentage of foreigners who did not read or speak English to make the survey even reasonably accurate. He gave it as his opinion that iodized salt was practically the only kind sold by grocers and consequently it was in use in the majority of homes whether or not the people were aware of the change.

The two towns were chosen because they represented conditions slightly different from those existing in the counties covered, and because the school superintendents in both towns were unusually interested in goitre prevention and their co-operation was certain to be thorough.

A card was prepared and sent to the county school commissioners in the four counties and to the school superintendents in the two towns, for distribution through the schools. A supply sufficient to cover the entire school populations was provided. It will be noted that only two questions appear on the card, both of them answerable by "yes" or "no". The survey card follows:

MICHIGAN DEPARTMENT OF HEALTH
R. M. Olin, M. D., Commissioner

IODIZED SALT

You can now buy at your grocery a salt for table and cooking use that contains a small amount of iodin. The continual use of this salt will prevent the development of simple goiter.

The Michigan Department of Health wishes to know how generally this iodized salt is being used. Will you please answer the following questions, and return this card to the school? Thank you.

1. Do you now use iodized salt?.....
2. Will you, in the future, use iodized salt?.....

.....
Parent or Guardian.

Please return this card to the School Teacher Promptly.

To accompany the card a special leaflet was written, "Preventing Simple Goitre". This explained the reason for the use of iodized salt.

Filled-in cards have been returned from two counties, Wexford and Roscommon, and the two towns. The tabulated report follows:

WEXFORD COUNTY

Cards returned	685	100%
Now using iodized salt	201	29%
Will use iodized salt	352	51%
Will not use iodized salt	37	6%
Replies indefinite	95	14%

ROSCOMMON COUNTY

Cards returned	124	100%
Now using iodized salt	88	71%
Will use iodized salt	23	19%
Will not use iodized salt	3	2%
Replies indefinite	10	8%

MT. PLEASANT

Cards returned	445	100%
Now using iodized salt	289	65%
Will use iodized salt	118	27%
Will not use iodized salt	15	3%
Replies indefinite	23	5%

DOWAGIAC

Cards returned	599	100%
Now using iodized salt	290	49%
Will use iodized salt	183	30%
Will not use iodized salt	67	11%
Replies indefinite	59	10%

SUMMARY

Cards returned	1,853	100%
Now using iodized salt	868	47%
Will use iodized salt	676	36%
Will not use iodized salt	122	7%
Replies indefinite	187	10%

It seems probable that the addition of the other two counties will not materially change the proportions. The fact that the number of families that will use iodized salt nearly equals the number now using it speaks well for the survey as an educational measure. The number of objectors—7 per cent—shows that it was not only the friends of the cause who returned their cards.

As an indication of the extent of use of iodized salt, the total of 83 per cent now using it and promising to use it in the future is encouraging.

TOXIN-ANTITOXIN DISTRIBUTION INCREASES 227.29 PER CENT

The number of Michigan children who are immune to diphtheria is rapidly increasing. The quantities of toxin-antitoxin distributed by the Michigan Department of Health serve as a fairly accurate method of estimating the progress of the state-wide immnuization capaign. The distribution of toxin-antitoxin for each of the first six months of 1924 and 1925 was as follows:

Month	Number of cubic centimeters of toxin-antitoxin distributed 1924	1925
January	26,040	22,780
February	26,840	42,580
March	8,650	45,065
April	22,290	49,795
May	11,270	42,440
June	1,130	16,040
Total	96,220	218,700

The total increase of this year over 1924 is 227.29 per cent. Of course some toxin-antitoxin is lost during the administration of the material, but it can be safely asserted that twice as many children were immunized this year as last.

Through the efforts of the medical profes-

sion and of public health officials, diphtheria is actually being made a disease of ancient history in Michigan.

One of the most interesting signs of the development and progress of our civilization is found in the care of crippled children. Several organizations are taking a definite interest in this kind of work and are doing a great deal to care for those unfortunates who, by reason of some prenatal cause, are deformed or defective in some manner, and it is this kind of work that will mean to the future a decreased dependency.

It will be possible thus to not only relieve the state from the burden of caring for these unfortunates, but to permit the individual to enjoy a productive, happy life.

As in all other phases of public health work, before progress can be made it is necessary to know where these cases are, and with this in mind the Michigan Department of Health has added to the birth certificate the question: "Was there any serious malformation or defect?" It is hoped by this means that information may be obtained which, when placed in the hands of those agencies which are doing so much to aid the under-privileged child, will do much for both the child and for society. It is hoped that physicians will realize the purpose of this question and will be very careful in filling out this part of the blank.

In the field of prophylaxis and treatment of scarlet fever there has been no development in the past two months that would warrant the Michigan Department of Health in altering the position it has taken previously; namely, that certain lots of concentrated scarletinal antitoxin are very efficacious in the treatment of toxic cases of scarlet fever; that the antitoxin should not be used as a prophylaxis because the treatment is more serious than the average case of scarlet fever.

The Dick toxin for permanently immunizing individuals against scarlet fever or disensitizing them to scarlet fever is still in the realm of research as the dosage has not yet been established.

During July the United States Patent Office issued a patent to the Doctors Dick covering the production of toxin and its use in the manufacture of biological products for the treatment and prevention of scaret fever. These patents have been turned over to a non-profit making corporation in the city of Chicago, and licenses will be issued by this corporation for the manufacture of biological products. The details of the agreements have not been announced.

PREVALENCE OF DISEASES

JULY REPORT

Cases Reported

	June 1925	July 1925	July 1924	Average for 5 yrs
Pneumonia	503	158	141	139
Tuberculosis	592	549	467	496
Typhoid Fever	31	69	64	83
Diphtheria	297	204	315	414
Whooping Cough	909	732	547	720
Scarlet Fever	1,002	434	538	402
Measles	2,365	456	635	782
Smallpox	117	43	206	167
Meningitis	10	5	18	14
Poliomyelitis	6	11	6	15
Syphilis	1,332	1,049	1,131	735
Gonorrhea	897	1,012	989	930
Chancroid	13	5	17	19

CONDENSED MONTHLY REPORT

Lansing Laboratory, Michigan Department of Health

JULY, 1925

	+	—	+—	Total
Throat Swabs for Diphtheria				1254
Diagnosis	36	363		
Release	228	264		
Carrier	8	321		
Virulence Tests	15	19		
Throat Swabs for Hemolytic Streptococci				856
Diagnosis	283	116		
Carrier	12	445		
Throat Swabs for Vincent's	17	382		399
Syphilis				10840
Wassermann	978	4468	76	
Kahn	1114	4149	50	
Darkfield	2	3		
Examinations for Gonococci	154	1637		1791
B. Tuberculosis				380
Sputum	68	290		
Animal Inoculations	3	19		
Typhoid				391
Feces (Includes Brightmore carriers)	3	313		
Blood Cultures	1	18		
Urine		1		
Widal	5	50		
Dysentery	5	26		31
Intestinal Parasites (Includes Brightmore)				306
Transudates and Exudates				337
Blood Examinations (not classified)				287
Urine Examinations (not classified)				203
Water and Sewage Examinations				1140
Milk Examinations				54
Toxicological Examinations				13
Autogenous Vaccines				6
Supplementary Examinations				179
Unclassified Examinations				172
Total for the Month				18639
Cumulative Total (Fiscal year)				18639
Increase over this month last year				2623
Outfits Mailed Out				12170
Media Manufactured, c.c.				490905
Diphtheria Antitoxin Distributed, units				22934000
Toxin-Antitoxin Distributed, c.c.				6820
Typhoid Vaccine Distributed, c.c.				2117
Silver Nitrate Ampules Distributed				2560
Examinations Made by Houghton Laboratory				1282

AN ALL STAR CAST OF SPEAKERS. SEE PROGRAM

The Official Program of the 105th (60) Annual Meeting of the Michigan State Medical Society, Muskegon, Michigan, September 8-9-10th, 1925

OFFICIAL CALL

The Michigan State Medical Society will convene in Annual Session in Muskegon on September 8, 9 and 10, 1925. The activities will be conducted in accordance with the following program:

C. C. Clancy, *President.*

J. B. Jackson, *Chairman of the Council.*

J. E. King, *Speaker.*

Attest: F. C. Warnshuis, *Secretary.*

COUNCIL

The Council will convene:

September 8th—11:00 a. m.
September 8th— 5 p. m.
September 9th—12:00 m.
September 10th—12:00 m.

CONDENSED PROGRAM SCHEDULE

Tuesday, September 8th.

11:30 a. m.—Meeting of Council—Occidental Hotel.
2:00 p. m.—First Session of House of Delegates.
5:30 p. m.—Meeting of the Council.
7:30 p. m.—Second Session of House of Delegates.
9:00 p. m.—Entertainment.

Wednesday, September 9th.

9:00 a. m.—Opening of Scientific Program—First Session.
1:30 p. m.—Second Session, Scientific Program.
4:00 p. m.—Third Session, House of Delegates.
5:30 p. m.—Meeting of The Council.
7:30 p. m.—First General Session—Regent Theatre.

Thursday, September 10th.

9:00 a. m.—Third Session, Scientific Program.
12:00 m. —General Session.
1:30 p. m.—Fourth Session, Scientific Program.

FIRST GENERAL SESSION

Wednesday Evening, September 9th, 7:30 P.M.

PLACE: Regent Theatre.

1. Call to Order.
2. Invocation—Rev. Archibald Hadden, D.D., Muskegon.
3. Address of Welcome—R. J. Busard, M. D., President Muskegon County Medical Society, Muskegon, Mich.
4. Announcements—The Secretary.
5. President's Annual Address. C. C. Clancy, M. D., Port Huron, Mich.
6. Address: "Problems Relating to the Liver and Biliary Tract."
   George W. Crile, M. D., Clevelalnd, Ohio.
7. Resolutions.
8. Adjournment.

SECOND GENERAL SESSION

Thursday, September 10th, 12:00 M.

PLACE: Armory Auditorium.

1. Announcements—The Secretary.
2. Result of Ballot for President.
3. Introduction of President.
4. Unfinished Business.
5. Adjournment.

SCIENTIFIC PROGRAM

CLINICAL SESSIONS

PLACE: Armory Amphitheatre.

FIRST SESSION

Wednesday, September 9th, 9 A. M.

F. J. Sladen, M. D., Detroit, Presiding.

General Topic:—"The History and Examination of the Patient."

1. 9:00 a. m.—Opening Remarks.
   President C. C. Clancy, M. D., Port Huron.
2. 9:15 a. m.—Clinical Conferences.
   J. B. Jackson, M. D., Kalamazoo, Chairman of the Council.
3. 9:30 a. m.—From the Medical Point of View.
   Roger S. Morris, M. D., Cincinnati, Ohio.
4. 10:00 a. m.—From the Surgical Point of View.
   Clarence L. Starr, M. D., Toronto.
5. 10:30 a. m.—From the Pediatric Viewpoint.
   I. A. Abt, M. D., Chicago.
6. 11:00 a. m.—From the Ophthalmological and Oto-Laryngological Point of View.
   J. A. Stucky, M. D., Lexington, Ky.
7. 11:30 a. m.—From the Public Health Viewpoint.
   Henry S. Helmholz, M. D., Rochester, Minn.

SECOND SESSION

Wednesday, September 9th, 1:30 P. M.

J. W. Vaughn, M. D., Detroit, Presiding.

General Topic—The Kidney in Its Relations to Disease."

8. 1:30 p. m.—MEDICAL—The Classification, Recognition and Treatment of Chronic Nephritis.
   Ralph H. Major, M. D., Kansas City, Mo.

9. 2:00 p. m.—SURGICAL—Tuberculosis of the Kidney, Its Diagnosis and Treatment.

Hugh H. Young, M. D., Baltimore, Md.

10. 2:30 p. m.—PEDIATRICAL—Acute Nephritis in Children and the Relation of Childhood Affections to the Kidney in Adult Life.

Wm. McKim Merriott, M. D., St. Louis, Mo.

11. 3:00 p. m.—GYNECOLOGICAL—Pyelitis and Pyelonephritis. The Relation of the Kidney to Pelvic Conditions.

Channing W. Barrette, M. D., Chicago.

12. 3:30 p. m.—OBSTETRICAL—Eclampsia and the Kidney in Pregnancy.

David S. Hillis, M. D., Chicago, Ill.

13. 4:00 p. m.—OPHTHALMOLOGICAL—Ocular Evidences of Renal Diseases.

Harry S. Gradle, M. D., Chicago, Ill.

THIRD SESSION

Thursday, September 10th, 9 A. M.

Dr. H. H. Cummings, Ann Arbor, Presiding.

General Topic:—"General Symposium Upon the Topic of Malignant Disease."

14. 9:00 a. m.—MEDICAL—The Problem of Cancer as Met by the Internist.

Solomon Strouse, M. D., Chicago, Ill.

15. 9:30 a. m.—SURGICAL—The Contact of the Surgeon with the Problem of Cancer.

George W. Crile, M. D., Cleveland, Ohio.

16. 10:00 a. m.—GYNECOLOGICAL — Cancer in the Field of the Gynecologist.

Channing W. Barrette, M. D., Chicago.

17. 10:30 a. m.—OPHTHALMOLOGICAL AND OTO-LARYNGOLOGICAL — Primary and Metastatic Cancer of the Head.

Harry L. Pollack, M. D., Chicago.

18. 11:00 a. m.—ROENTGENOLOGICAL—Roentgenotherapy and Radiation in the Treatment of Cancer.

Howard P. Doub, M. D., Detroit.

19. 11:30 a. m.—PATHOLOGICAL — The Cause and Prevention of Cancer.

Alfred Warthin, M. D., Ann Arbor.

FOURTH SESSION

Thursday, September 10th, 1:30 P. M.

B. N. Culver, M. D., Battle Creek, Presiding.

General Topic: "Acute Infections and Infectious Diseases."

20. 1:30 p. m.—MEDICAL — Pneumonia — Modern Prophylaxis and Therapeutics.

Frederick T. Lord, M. D., Boston, Mass.

21. 2:00 p. m.—SURGICAL—Septicaemias and the Use of Dyes in Therapy.

Hugh H. Young, M. D., Baltimore, Md.

22. 2:30 p. m.—PEDIATRICAL—The Newer Epidemics of Childhood.

I. A. Abt, M. D., Chicago, Ill.

23. 3:00 p.m. — GYNECOLOGICAL AND OBSTETRICAL—The Results of Acute Pelvic Infections.

Channing W. Barrett, M. D., Chicago.

24. 3:30 p. m. — OTO-LARYNGOLOGICAL — Infections of the Middle Ear.

Perry G. Goldsmith, M. D., Toronto, Canada

25. 4:00 p. m.—PUBLIC HEALTH—Infectious Diseases and the Health of the Adult in Recent Years.

Henry S. Helmholz, M. D., Rochester, Minn.

SECTION ON OPHTHALMOLOGY AND OTO-LARYNGOLOGY

Tuesday, September 8th, 2 to 5 P. M.

Grand Rapids.

Butterworth Hospital—Clinics.

Under the direction of Dr. Huizinga, given by the local Eye, Ear, Nose and Throat men.

6:30 p. m.—Section Dinner—Morton Hotel.

Following the dinner there will be several Post-Graduate Talks, the following ones being already listed.

"The Conservation of Vision in School Children."

J. G. Huizenga, M. D.

"Recent Advances in Ophthalmic Therapeutics."

Harry S. Gradle, M. D.

"The Relation of the Specialist to General Medicine."

J. A. Stucky, M. D.

HOUSE OF DELEGATES

J. E. King, Detroit, *Speaker.*
W. J. O'Reilly, Saginaw, *Vice-Speaker.*
F. C. Warnshuis, Grand Rapids, *Secretary.*

CREDENTIAL COMMITTEE

J. Hamilton Charters, M. D., Chairman, Detroit, Michigan.
J. D. Brook, M. D., Grandville, Michigan.
E. J. Evans, M. D. Ontonagon, Michigan.
F. W. Garber, Sr., M. D., Muskegon, Michigan.
H. Stewart, M. D., Flint, Michigan.

SESSIONS

September 8th—2:00 p. m.
September 8th—7:00 p. m.
September 9th—4:00 p. m.
September 10th—8:00 a. m.

YOU CAN ILL AFFORD TO MISS THIS EXCEPTIONAL MEETING

ORDER OF BUSINESS

FIRST SESSION

September 8th, 2 P. M.

PLACE—Occidental Hotel.

1. Call to Order.
2. Report of Credential Committee.
3. Roll Call.
4. Speaker's Address—J. E. King, Detroit.
5. President's Address—C. C. Clancy, Port Huron.
6. Report of Council—J. B. Jackson, Kalamazoo.
7. Election of Nominating Committee.
8. Appointment of Reference Committees.
9. Report of Standing Committees.
   (a) Civic and Industrial Relations.
   (b) Legislative.
   (c) Venereal Disease Prevention.
   (d) Public Health Education.
   (e) Delegates to the A. M. A.
   (f) Tuberculosis.
   (g) Medical Education.
10. Resolutions and New Business.

SECOND SESSION

September 8th, 7 P. M.

1. Call to Order.
2. Roll Call.
3. Reports of Reference Committees.
4. Unfinished Business.
5. New Business.
6. Adjournment.

THIRD SESSION

September 9th, 4 P. M.

1. Call to Order.
2. Roll Call.
3. Reports of Committees.
4. Report of Nominating Committee.
5. Election:
   (a) Vice-Presidents—(Four).
   (b) Councillors.
      1st Dist. F. B. Walker, Term Expires.
      2nd Dist. B. F. Green, Term Expires.
      3rd Dist. R. C. Stone, Term Expires.
   (c) The Delegates and Alternates A. M. A.
   (d) Place of Next Annual Meeting.
   (e) Adjournment.

   (Note:—Unless there is Unfinished Business there will be no Fourth Session.

Notes—1. Nominating Committee Nominates:
   (a) Four Vice-Presidents.
   (b) Two Delegates and Alternates to the A. M. A.
   (c) Place of Next Annual Meeting.

2. Councillors are nominated by the Delegates of each Councillor District and are called in Caucus by the Secretary.

DELEGATES AND ALTERNATE DELEGATES
HOUSE OF DELEGATES

Note:—Delegates in Boldface type.
Alternates in Lightface type.

ALPENA COUNTY

C. M. Williams
John Jackson
S. T. Bell

ANTRIM-CHARLEVOIX-EMMETT-CHEBOYGAN

Buell H. Van Leuven
Frederick C. Mayne

BARRY COUNTY

E. T. Morris
C. K. Brown

BAY-ARENAC-IOSCO

C. H. Baker
C. A. Stewart
M. R. Slattery
D. T. Smith

BENZIE COUNTY

BERRIEN COUNTY

Robert Henderson
R. H. Snowden

BRANCH COUNTY

E. E. Hancock
W. W. Williams

CALHOUN COUNTY

C. S. Gorsline
Geo. A. Hafford
Wilfred Haughey
S. K. Church

CASS COUNTY

Wm. C. McCutcheon
E. A. Planck

CHIPPEWA-LUCE-MACKINAC

E. H. Webster
Geo. H. Dickison

CLINTON COUNTY

W. A. Scott

DELTA COUNTY

J. O. Groos
A. J. Carlton

DICKINSON-IRON

EATON COUNTY

H. J. Prall
Dr. Quick

GENESEE COUNTY

H. Stewart
H. Cook
C. Moll
M. S. Knapp
J. G. R. Manwaring
J. Benson

GOGEBIC COUNTY

W. E. Tew
D. C. Pierpont

GRAND TRAVERSE-LEELANAU

George A. Holliday
Frank Holdsworth

HILLSDALE COUNTY

H. E. Bell
D. W. Fenton

ONE WOULD HAVE TO TRAVEL FAR TO HEAR THESE DISTINGUISHED MEN

HOUGHTON-BARAGA-KEEWENAW

C. E. Rowe
J. B. Quick

HURON COUNTY

INGHAM COUNNY

B. M. Davey
L. W. Toles
Samuel Osborn
O. N. Bruegel

IONIA-MONTCALM

C. H. Peabody
Perry C. Robertson

GRATIOT-ISABELLA-CLARE

Dr. Graham
Chas. D. Pullen

JACKSON COUNTY

KALAMAZOO COUNTY

L. J. Crum
W. Den Bleyker
B. A. Shepard
W. E. Collins
D. E. Squires
F. C. Penoyer

KENT COUNTY

A. V. Wenger
J. D. Brook
E. W. Schnoor
R. F. Webb
J. W. Rigterink
A. M. Martin
W. E. Wilson
H. J. Pyle

LAPEER COUNTY

Philip E. Martin
Daniel J. O'Brien

LENAWEE COUNTY

L. J. Stafford
A. W. Chase

MACOMB COUNTY

MANISTEE COUNTY

H. A. Ramsdell
H. D. Robinson

MARQUETTE-ALGER

A. W. Hornbogen
L. W. Howe

MASON COUNTY

MECOSTA COUNTY

L. E. Kelsey
John L. Burkhart

MENOMINEE COUNTY

MIDLAND COUNTY

G. E. Orth
.C V. High, Sr.

MONROE COUNTY

Herbert Landon
C. J. Golinvaux

MUSKEGON COUNTY

F. W. Garber, Sr.
S. A. Jackson

NEWAYGO COUNTY

A. C. Thompsett
W. H. Barnum

OAKLAND COUNTY

F. B. Gerls
F. A. Mercer

OCEANA COUNTY

W. L. Griffin
O. G. Wood

OTSEGO-MONTMORENCY-CRAWFORD
OSCODA-ROSCOMMON-OGEMAW

ONTONAGON COUNTY

E. J. Evans
F. W. McHugh

OSCEOLA-LAKE

OTTAWA COUNTY

W. G. Winter
W. C. Kools

PRESQUE ISLE

SAGINAW

Nelson F. McClinton
D. E. Bagshaw

SANILAC COUNTY

John Campbell
G. S. Tweedie

SCHOOLCRAFT COUNTY

None

SHIAWASSEE COUNTY

J. J. Blue
A. L. Arnold, Jr.

ST. CLAIR COUNTY

T. F. Heavenrich
A. L. Callery

ST. JOSEPH COUNTY

C. G. Miller
C. G. Morris

TRI-COUNTY
WEXFORD-KALKASKA-MISSAUKEE

W. Joe Smith
S. C. Moore

TUSCOLA COUNTY

R. L. Dixon
C. W. Clark

WASHTENAW COUNTY

WAYNE COUNNTY

J. Hamilton Charters
J. A. Kimzey
Leo Dretzka
Roger V. Walker

ALL THE SESSIONS IN ONE MAIN AUDITORIUM IN THE ARMORY

Louis J. Hirschman
Harry M. Malejan
Walter J. Wilson
John N. Neary
Harry F. Dibble
Henry R. Carstens
Harold E. Clark
Geo. E. Frothingham
Wm. J. Stapleton, Jr.
Alex W. Blain
Geo. M. Livingston
H. A. Reye
Wm. J. Cassidy
Lynn Webber
Angus McLean
Armand Kersten
J. H. Dempster
Rollin H. Stevens
Ray Connor
T. P. Clifford
John L. Chester
L. F. C. Wendt
Guy Connor
Frank A. Kelly
J. W. Cunningham
Harry C. Saltzstein
Jos. H. Andries
C. R. Van Gundy
Wm. H. Rogers
Wm. A. Hackett
M. P. Fisher
Howard W. Peirce
Wm. C. Lawrence
John J. Corbett
L. E. Clark
J. A. McGarvah
Douglas Gordon
Richard M. McKean
Wm. S. Reveno
Ira G. Downer
A. L. Gignac
G. Van Amber Brown
Edw. D. Spalding
C. Hollister Judd
Chas. F. Kuhn
T. J. Foster

MEETING PLACES

House of Delegates—Convention Hall, Occidental Hotel.

Scientific Meetings—Main Auditorium, New Armory.

First General Session—Regent Theatre.

Registration—The Registration Booths will be found on the main floor of the Armory.

REGISTRATION

Every member is required to register, receive the official badge and program. The Registration Booth will be found in the Armory, just as you enter.

ENTERTAINMENT

Tuesday Evening, September 8th—9 o'Clock

Smoker and Vaudeville—Elks Temple.

Wednesday, September 9th

Informal entertainment at Muskegon Clubs and Elks Temple following evening meeting.

General privileges of the Muskegon Golf Club and the city clubs will be extended to members on presentation of Badge, during the entire session.

Preceding Wednesday Evening General Session there will be an organ recital in the theatre from 7:00 until 7:30 p. m.

Ladies—Bridge and golf and auto rides will be provided for the ladies in attendance.

Announcements will be made as to time and place during the first General Session.

LOCAL COMMITTEE ON ARRANGEMENTS

General Chairman, George L. LeFevre, M. D.

General Committee—
Doctors LeFevre, Garber, Wilson, Busard.

Buildnig and Exhibits—
Doctors Laurin, Marshall, Holmes.

Hotels and Housing—
Doctors Wm. LeFevre, Fleshman, Colignon.

Entertainment—
Doctors Hartman, Harrington (R. J.), Thornton, O'den.

Badges and Printing—
Doctors Jackson, Cohen, Matteo.

Meeting Places—
Doctors Egan, Pyle.

Finance—
Doctors Marshall, Wilson.

Automobile—
Doctors Laughery, D,Alcorn.

Reception
Doctors LeFevre, Busard, Teifer.

Publicity—
Doctors Teifer, Kniskern.

OUR EXHIBITORS

Space	Name
1-2	Medical Protective Company.
3	Lederle Antitoxin Laboratory.
4	Sharp & Smith.
5	Mellins Food Company.
6	Prophylactic Mfg. Co.
7	Camerons Surgical Specialty Co.
8	State Tuberculosis—Mr. Werle.
9	William A. Habermas.
10-11-12-13	G. A. Ingram Co.
14	Professional Underwriters Corp.
15	Standard X-Ray Company.
16-17	Hanovia Chemical & Mfg. Co.
18	Horlicks Malted Milk.
19	Deshell Laboratories, Inc.
20	Nujol Laboratories (Standard Oil).
21	Victor X-Ray Croporation.
22-23	J. F. Hartz Co.
24	H. G. Fischer & Co.
25	M. B. Evans X-Ray Co.

THIS MEETING WILL BE PROFITABLE TO EVERY MEMBER ATTENDING

The Journal
OF THE
Michigan State Medical Society
ISSUED MONTHLY UNDER THE DIRECTION OF THE COUNCIL

PUBLICATION COMMITTEE
R. C. Stone, Chairman.....Battle Creek
C. D. Darling.....Ann Arbor
J. D. Bruce.....Saginaw

Editor and Business Manager
FREDERICK C. WARNSHUIS, M. D., D. Sc., F. A. C. S.
Grand Rapids, Michigan

Entered at Grand Rapids, Michigan, Postoffice as second class matter.
Acceptance for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917, authorized August 7, 1918.

All communications relative to exchanges, books for review, manuscripts, news, advertising and subscriptions are to be addressed to F. C. Warnshuis, M. D., 4th Floor Powers Theatre Building, Grand Rapids, Michigan.
The Society does not hold itself responsible for opinions expressed in original papers, discussions, communications, or advertisements.

Subscription Price—$5 per year, in advance

SEPTEMBER, 1925

Report Malpractice Threats Immediately to Doctor F. B. Tibbals, 1212 Kresge Building, Detroit, Michigan.

Editorials

ANNUAL MEETING, MUSKEGON, SEPTEMBER 8, 9, and 10th.

This issue contains the completed program for our Annual Meeting that is to be held in Muskegon on September 8th, 9th and 10th. Our annual meetings have been characterized in the past by programs that caused them to be outstanding. We have had men of national reputation participate in our scientific discussions. There was much for educational profit for the members who attended. We have been pleased and proud of those annual meetings for they demonstrated our organizational progress. To better record that progress your officers and Program Committee have given much thought and labor toward the arrangement of this year's program. The governing purpose and spirit was to provide two days of scientific discussions that would be of intensive educational value to the members in attendance. The Committee has completed its plans and presents the program that is imparted in this issue.

Our appraisal is that it exceeds by far any program that has ever been presented in this state. The discussants comprise an All-Star Group and are:

Our Distinguished Guests

George W. Crile, M. D., Cleveland, Ohio.
Fellow American Medical Association.
Well known surgeon of the Crile Clinic, Cleveland, Ohio.

Hugh H. Young, M. D., Baltimore, Md.
Fellow American Medical Association.
Professor of Urology, Johns Hopkins University, Baltimore, Md.
Member Southern Surgical Association.
Member American College of Surgeons.
Member American Association of Genito-Urinary Surgeons.

Solomon Strouse, M .D., Chicago, Illl.
Fellow American Medical Association.
Specialist in Internal Medicine.
Member Chicago Pathological Society.

Frederick T. Lord, M. D., Boston, Mass.
Fellow American Medical Association.
Specialist in Internal Medicine.
Member American Association for Thoracic Surgery.
Member Association of American Physicians.
Member American Society for Clinical Investigations.
Member American Climatalogical and Clinical Association.

Ralph H. Major, M. D., Kansas City, Mo.
Fellow American Medical Association.
Professor of Medicine, University of Kansas.
Specialist in Internal Medicine.
Member American Association of Pathologists and Bacteriologists.

W. McKim Marriott, M. D., St. Louis, Mo.
Fellow American Medical Association.
Dean and Professor of Pediatrics, Washington University, St. Louis.
Specialist in Pediatrics.
Member American Pediatric Society.
Member St. Louis Pediatric Society.
Member Association of American Physicians.
Member American Society for Clinical Investigations.

Our Distinguished Guests

Channing W. Barrette, M.D., Chicago, Ill.

Fellow American Medical Association.
Professor of Gynecology, University of Illinois.
Specialist in Gynecology.
Member American Association of Obstetricians, Gynecologists and Abdominal Surgeons.
Member American Gynecological Society.
Member Detroit Oto-laryngological Society.
Member Colorado Oto-laryngological Society.

Isaac A. Abt, M. D., Chicago, Ill.

Fellow American Medical Association.
Professor Pediatrics Northwestern University.
Specialist in Pediatrics.
Member American Pediatric Society.
Member American Dermatological Association.
Member Chicago Urological Society.

J. A. Stuckey, M. D., Lexington, Ky.

Fellow American Medical Association.
Specialist in Ophthalmology, Otology, Laryngology, Rhinology.
Member American Academy of Ophthalmology and Oto-laryngology.
Member American Laryngological, Rhinological and Otological Society.
Member American Otological Society.
Member American College of Surgeons.

H. F. Helmholz, M. D., Rochester Minn.

Fellow American Medical Association.
Professor of Pediatrics, University of Minnesota.
Specialist in Pediatrics.
Member American Pediatric Society.
Member Central States Pediatric Society.
Member American Association of Pathologists and Bacteriologists.
Member Mayo Clinic.

David S. Hillis, M. D., Chicago, Ill.

Fellow American Medical Association.
Assistant Professor Obstetrics, Northwestern University.
Specialist in Obstetrics and Gynecology.
Member Chicago Gynecological Society.
Member American College of Surgeons.

Our Distinguished Guests

Harry S. Gradle, M. D., Chicago, Ill.

Fellow American Medical Association.
Associate Professor Opthology, University of Illinois.
Specialist in Opthalmology.
Member American Academy of Opthalmology and Oto-laryngology.
Member Chicago Opthalmological Society.
Member Sioux Valley Eye and Ear Academy.
Member Chicago Pathological Society.

Roger S. Morris, M. D., Cincinnati, Ohio.

Fellow American Medical Association.
Professor of Medicine, University of Cincinnati.
Specialist in Internal Medicine.
Member American Association of Pathology and Bacteriology.

Harry L. Pollock, M. D., Chicago, Ill.

Fellow American Medical Association.
Specialist in Otology, Laryngology, Rhinology.
Member American Academy of Ophthalmology and Oto-laryngology.
Member American Laryngological, Rhinological and Otological Society.
Member Chicago Laryngological and Otological Society.
Member Sioux Valley Eye and Ear Academy.

Alfred S. Warthin, M. D., Ann Arbor. Mich.

Fellow American Medical Association.
Professor of Pathology, University of Michigan.
Specialist in Pathology.
Member Association of American Physicians.
Member American College of Physicians.
Member American Association of Pathologists and Bacteriologists.
Member American Society for Experimental Pathology.

Howard P. Doub, M. D., Detroit, Mich.

Fellow American Medical Association.
Specialist in Roentgenology.
Member American Roentgen Ray Society.
Member Radiological Society of North America.

AN ALL STAR CAST OF SPEAKERS. SEE PROGRAM

Our Distinguished Guests

P. G. Goldsmith, M. D., Toronto, Canada.

Professor Otology and Laryngology, Univeristy of Toronto.
Member American Association of Obstetricians.
Member Gynecologists and Abdominal Surgeons.
Member American Gynecological Society.
Member American Orthopedic Association.
Member American Surgical Association.
Member Los Angeles Surgical Association.

C. L. Starr, M. D., Toronto, Canada.

Professor Surgery, Toronto University.
Specialist in Orthopedic Surgery.
Member American Orthopedic Association.
Member American Surgical Association.

The subjects that will be discussed by these distinguished men are of vital, present-day interest and of practical application in the daily work of every doctor. These experienced speakers and teachers will impart the accepted, modern theories and practices. That they will be worth hearing is self apparent. To hear and meet them at national meetings would entail much time and expense while now that privilege is available by simply alloting two days of time and a few hours of travel to attend the Annual Meeting in Muskegon. We congratulate our Program Committee. We are sure that their efforts will be rewarded by an attendance that will exceed any meeting that has been held. Certainly no member can afford to miss the Muskegon Meeting and this most excellent and practical program.

Suitable arrangements have been made to accomodate every member. The new Muskegon Armory will be arranged in the form of an amphitheatre so that all may see and hear. The auditorium is sufficiently large to provide for this feature. The sessions will permit the alloting of one-half hour to each speaker. The Armory will also house our exhibitors who will have on demonstration a full line of medical supplies and equipment.

The profession of Muskegon, our hosts, assure us that they will be able to provide suitable accomodations for every visitor. If you have not already done so, write to Dr. Wm. LeFevre, Chairman of the Committee on Hotels, Muskegon, and he will attend to your needs. Our hosts have also provided for wholesome and pleasing entertainment.

Thus might we continue and enlarge upon the feautres of our 1925 meeting. It is unnecessary to do so for a perusal of the program will impell every member with the desire to be present. One can ill afford not to be there.

HOUSE OF DELEGATES

The House of Delegates will be convened in its first session at 2.00 p. m. on the afternoon of Tuesday, September 8th, in the Convention Hall in the Occidental Hotel. Every elected delegate should recognize his responsibility and be present at this opening and the succeeding sessions of the House of Delegates. In the final analysis this House of Delegates controls and directs the activities of our State Society and governs our organizational work. It reflects and enacts the desires of our composite membership. It is extremely urgent and important that every county organization be represented and that every delegate participate in the deliberations of the House. County Secretaries are urged to convey to their delegates the importance of their attendance.

GENERAL SESSION

Our customary General Session will be held in the Regent Theatre on Wednesday Evening, September 9th, at 7:30 p. m. An appealingly attractive program will be tendered. President Clancy will upon this occasion deliver the Annual Presidential Address. The other speaker will be Dr. George W. Crile of Cleveland. Nominations for President will also be made at this session. The Second General Session will be held on Thursday noon at which time the newly elected President will be introduced into office.

Our final word is, to note the dates, cancel all conflicting affairs and let nothing interfere with your being in Muskegon on September 8th, 9th and 10th.

FEDERAL TAX INJUSTICES—YOUR PROTESTS SHOULD BE FILED

In our August issue we set forth the arguments that had been prepared as to why physicians should be relieved from the unjust federal tax regulations that cause doc-

tors to pay an excessive Harrison Narcotic Tax and the other treasury ruling that prohibits doctors from deducting from their income tax money expended in pos-graduate study, travel and expenses in attending medical meetings and similar legitimate business expense. We also requested our members to file their protests with the President, Secretary of the Treasury, Hon. Wm. R. Green, Chairman of the Committee on Ways and Means and with our State Senators and Representatives. All these may be addressed at Washington. We are again urging that our members join in with the protests and requests for relief that are being filed by physicians from every state in the Union. Inasmuch as the Committee on Ways and Means is in session and is giving consideration to the general question of tax reduction it is essentially imperative that such protest be promptly filed and that no delay be incured. An effective recording of our opinions gives promise that relief may be expected. We therefor plead that an effective protest be recorded by at least 2,000 Michigan doctors. Do so today. Do not wait.

Dr. W. C. Woodward, Secretary of the Bureau of Legal Medicine and Legislation of the American Medical Association is actively engaged in presenting the profession's case before the government officials and we should all rally to his support. The June Bulletin of the A.M.A., which is mailed to every Fellow, contained the arguments that we reprinted in our August issue. Please refer to that issue. We are now appending additional information as to the biased attitude that is being assumed by the Treasury Department and Commissioners. As physicians we have tolerated this state of affairs far too long and it is now time that we record an emphatic protest and obtain the relief to which we are entitled. Concerted action will be of material value. RECORD YOUR PROTEST WITHOUT DELAY.

Since the foregoing article was written a new reason has been given for denying the deductibility of the expenses of attending medical meetings and of post-graduate study. In a letter written by the Acting Secretary of the Treasury to the Missouri State Medical Association, July 1, 1925, it was stated:

"Your letter and resolutions protest against an unjust discrimination against the medical profession because of a ruling of the Commissioner of Internal Revenue denying to physicians deductions for certain professional expenses incurred while attending meetings of medical societies and post-graduate medical schools. Where expenses form an essential element of the services rendered by a physician and are incurred directly in the practice of his profession, deducton is allowed the same as in the case of the manufacturer or merchant whose business involves similar expense. Attendance at meetings or post-graduate schools, while beneficial and even necessary in the broader sense, is wholly optional with the taxpayer, and for that reason such expense is to be treated as a personal expense, and not as an allowable deduction."

Here we have laid down a principle applicable to all taxpayers alike: If an expense is wholly optional with the taxpayer, it is for that reason to be treated as a personal expense and is not deductible. It is necessary to inquire, therefore, into the meaning of the term, "wholly optional," and to see how the principle stated can be and has been applied in practice.

In a certain sense it may be "wholly optional" with the physician whether he will or will not keep his knowledge and skill up to date by books and periodicals and home-town sources of information, to the exclusion of attendance at medical meetings held elsewhere and on post-graduate courses of study. In the same sense, however, it is "wholly optional" with every merchant and every manufacturer whether he keep his equipment and stock up to date through mail order catalogs, and through local sources of supply, to the exclusion of purchases elsewhere that necessitate inspection personally or through buyers and other agents. If the physician, however, in the excise of his option, seeks first-hand knowledge of his art outside of his home town, the federal government penalizes him; it taxes him on the cost of his search for knowledge and skill. But, if the manufacturer or merchant refuses to be limited by home-town and mail order sources of supply, and travels in search of equipment and stock, he suffers no such penalty. The law authorizes no such discrimination among taxpayers. The construction that has been put upon the law and that creates such a discrimination should, in view of the difficulty and expense of correction by court proceedings, be corrected by legislation.

Moreover, the ruling of the nondeductibility of "wholly optional" expenses is impossible of equitable application. If any expense account be split into small enough items, some are almost certain to appear that may be regarded as "wholly optional." For instance: Most merchants might carry on their business in smaller quarters than they occupy. Is the Commissioner of Internal Revenue, therefore, going to measure the floor space occupied, and deny the deductibility of the expense of so much of it as in his opinion is "wholly optional" with the merchant? If not, why should he undertake to measure the expanse of professional knowledge and skill to be occupied by the physician-taxpayer, and deny the deductibility of so much as he believes is "wholly optional" with the physician. Why does the Commissioner segregate the cost of the upkeep of the physician's knowledge and skill into the cost of books, which he allows as depreciation; the cost of periodicals which he allows current expenses; and the cost of out-of-town conferences, observation, and experience, at meetings and at post-graduate courses, which he does not allow at all?

The determination of the supposedly "wholly optional" or the obligatory character of any given expense involves further difficulty that makes the principle laid down in the Acting Secretary's letter impossible. A given expense may or may not be necessary, according as the presence of competition is greater or less. The high rent, expensive advertising, and costly window display of the mer-

chant would be unnecessary if he were wholly without trade rivalry and dealt in the actual necessities of life; but trade competition, in proportion to its intensity, removes these items and many others from the "wholly optional" field. So with the physician. If the physicians with whom he is thrown into competition were content to maintain their professional efficiency through books, periodicals, and home-town knowledge, he might do the same—and the entire plane of professional ability would be correspondingly debased. But the physician who would keep abreast of the times is compelled by professional competition to attend meetings of medical societies; and, if he would get the most out of his profession, he is compelled, in his earlier years at least, to seek postgraduate instruction. Is the Commissioner of Internal Revenue going to determine just how long every taxpayer—manufacturer, merchant or physician—shall withstand the pressure of competition before the expenses incurred in meeting it cease to be "wholly optional" and become obligatory? Such a thing is inconceivable; the cost of establishing year by year standards of competitive pressure for every business, trade and profession, and for every city, town, village and hamlet; of devising methods of accounting whereby those standards might be applied to the returns of taxpayers, and of actually applying them, would be prohibitive even though the project were otherwise possible.

The difficulty of discriminating between expenses wholly optional and expenses in part or wholly obligatory is clearly shown in rulings already made by the Treasury Department, such as the following:

It was held that the expenses relative to the outfitting and support of a baseball team, the uniforms of which bear the name of the taxpayer the players represent, are similar to those expended in other methods of advertising and are deductible as business expenses. 37-21-1815: O. D. 1030: Cumulative Bulletin, July-December, 1921, p. '20.

A corporation operating restaurants gave numbered tickets with each meal purchased. At the end of every six months an automobile was given to the customer holding the ticket bearing a certain number. It was held that the corporation might deduct the cost of the automobile as a business expense. 11-8-895: I. T. 1667: Cumulative Bulletin, January-June, 1923, page 83.

Concerning a deduction claim in 1918 for expenditures for Christmas gifts, it was found that such expenditures were made for procuring presents for buyers representing the trade customers with whom the taxpayer did business. It was found, too, that the practice was more or less general throughout the trade, and that because of competition in the business in which the taxpayer was engaged, it was necessary that the good will of buyers be maintained by such methods. It was held that the amounts so expended in the acquisition of gifts constitute an ordinary and necessary expense of business and was deductible. II-22-1067: A. R. R. 3131: Cumulative Bulletin, July-December, 1923, page 32.

C. N. Y. was chairman of a committee operating under the supervision of the American Engineering Standard Committee. In that capacity he made trips to Washington to attend meetings of the committee. The Solicitor for the Bureau of Internal Revenue, under date of December 3, 1921, held that the expenses of such travel were deductible, being incidental to the taxpayer's membership and activity in a technical society. Cited in the Solicitor's unpublished memorandum, May 13, 1922, Sol: I: I: 20-5-3-72.

Under the principle laid down by the Acting Secretary of the Treasury, in none of the cases cited above could the expense referred to have been regarded by the Treasury Department as wholly optional, for if os they could not have been allowed as deductible. That being admitted, it is impossible to understand on what evidence or by what logic expenses incurred by a physician in attending medical meetings and in pursing postgraduate study are held to be wholly optional and nondeductible.

Certainly, since the Revenue Act of 1924 permits, and maybe even requires, such fine distinctions as are indicated above, there is need for its amendment. All the medical profession asks is that it be placed on an equal footing with all other taxpayers.

WHAT WE ARE DOING

A short while ago we were in conversation with several doctors when one of them propounded the question: "What work is the State Medical Society doing?" For a moment we hesitated and then we asked the questioner: "Have you been reading the State Journal?" The reply was: "Sometimes". That explained why this member did not know nor was he fully informed as to what was being achieved—simply because he had not read The Journal ALL the time. There may be others like this man with whom we were in conversation, who do not always read each issue of The Journal or who have neglected to turn over in their mind all that your State Medical Society is accomplishing. We are therefor going to present a brief summarization and then urge that you get out back issues and secure further details. Before doing so we desire to point out once again that in each issue, in the editorial columns, in the department conducted by our Executive Secretary, Mr. Smith, and in the part devoted to County Society news, there will be found, from month to month, a continuous recording of organizational activity.

What are we doing?

Legislation. Through proper representation and by means of individual activity, quietly and without shouting out our activity, we were in constant touch with the activities of the last session of the legislature. Through this effort and through the work that was done adverse legislation was prevented as well as the bills that were introduced to give recognition to the cults. For very apparent reasons we cannot impart details, nevertheless, the assurance is given that much time was devoted to this work.

Medico-Legal Protection: Our Medico-

Legal Committee through its attorneys provides legal protection for every member threatened or sued for mal-practice. You individually may not have been in need of this service. We hope you never will require it. If you ever should you will find that this is a service that will be most helpful to you and will relieve you of much worry and annoyance. As it is, our Medico-Legal Committee handles from fifteen to twenty cases each month. It is a service and a protection to each member that is worth the annual dues alone.

Post-Graduate Clinical Conferences: Some sixteen of these conferences have been arranged and conducted. Fourteen more will be conducted before the end of the year. The conducting of these conferences brings to each Councillor District a most helpful and instructive discussion of medical subjects that serve to aid every physician. At the same time the opportunity is used to also conduct a public meeting for the education of the public in regard to scientific methods and to enlighten them as to how they may conserve their health by the employment of competent medical advice and treatment.

The Journal: The Journal must speak for itself. It is a publication that seeks to be of service and instruction to every member. It is the open forum of our Society and it records our progress and history.

Executive Field Secretary: Mr. Harvey George Smith has been devoting all of his time to this work since the first of the year. We cannot begin to tell what he has done and what he has accomplished and by reason of which every member profits. Mr. Smith has met with many of our County Societies. He will meet with all of them as soon as he can get around. He has assisted in solving local problems, removing difficulties, planning local work, obtaining lay interest and support, aiding County Secretaries, etc. Mr. Smith is constantly active in building up and enhancing our organizational activity and prestige. A service that cannot be tabulated but nevertheless a service that records definite results and benefits.

Joint Committee on Public Health Activity: This committee has carried on an active work in conducting public meetings before luncheon, grange, parent-teachers' associations, and similar clubs and organizations. It is conveying to the public the truths of modern medicine and enlightening them as to medical progress so that they may be able to discern truth and not be misled by the distorted claims of cults and quacks. This is a work that is reaching thousands of people each month and by reason of which each member derives benefit and profit.

Annual Meeting: We refer you to the program that is contained in this issue. There is first an immense amount of work entailed in preparing such a program and a large amount of correspondence. Then there are any number of details that must be perfected at the place of meeting. More than three months have been consumed in this work. That program, alone, brings to our meeting, speakers who are nationally known and to meet them and hear them in their own homes or before national meetings would cost an individual much in time and expense. You can profit from hearing them and to do so is worth more than your annual dues. To arrange for our annual meeting is no small task and requires much time and effort.

American Medical Association: As a State Society, we join with other organizations and form our national federacy. As a unit of that federacy we participate in its activities and aid our parent organization in the national work that it is doing through officers and Councils that aid and are of service as well as personal value to every doctor. Doctors rarely appreciate what our National body is accomplishing in their behalf, but were it to cease in its activities the result that would in almost every instance be unpleasant would become speedily apparent.

Our Council: The Council is composed of one representative from each of the fourteen congressional districts of the state. The Council functions in between the meetings of our House of Delegates and through the activities of each Councillor the interests of our members are conserved. The Executive Committee of the Council meets every mouth and spends many hours in directing our Society work. Here again is a small group of devoted men contributing their time and thought to better the welfare of each individual doctor.

Thus might we continue enumerating What We Are Doing. If we entered into minute details an entire issue of The Journal would not serve to record the work that is being done. The assurance is given that much is being done and that often the days are far too short to accomplish the tasks that lie before us. Your State Society is an active, going organization and is function-

ing seven full days in every week throughout the year. They are bringing to each member a dividend that is of several hundred fold. Your State Society needs your dues to defray the actual expenses that necessarily arise, but your State Society feels that it is giving a good accounting for these expenditures. Besides these dues your State Society needs more of your active support. That support should be contributed to your County Society in order that it may institute and carry out the work that is delegated to each county organization.

If greater interest would be recorded and if more continued support would be contributed by each member and if each doctor would become more than a dues paying member, your State Society could and would do more than it is now doing. At any rate we trust that this brief resume will awaken interest and reveal our general plan of work. We trust that you will remain abreast with our future activities by noting the reports and achievements that are being recorded in each issue of The Journal.

ABORTIONS

We are not supplied with figures that we can quote as indicative of the number of abortions that occur in this or any other state during the course of a year. Neither can we state with any positiveness the number that result from pathological conditions or that are induced. There is a growing conviction, however, that the number of induced abortions are being encountered with greater frequency. The opinion also is seemingly well founded that those seeking someone to produce the abortion experience but little difficulty in gaining their desires. Hospitals are recording an increasing number of patients that are being admitted suffering from incomplete abortions. It is these conditions that impel us to invite consideration of the subject.

Laws have been enacted, but seemingly with scant enforcement, making the seeking or the production of an abortion a criminal offense. Criminal prosecution is but rarely carried out and then only when the abortionist has sought and gained notoriety. Many abortions are being produced by men, not always doctors and sometimes women, who engage in this criminal practice year after year without an effort being made to put a stop to their practice. In many instances there are any number of individuals in the community who are aware of the nature of their work, still nothing is done. Local authorities and prosecuting attorneys wink at the offenses or claim to be swamped with work in raiding some poor individual who, seeking a little pleasure, has made a few quarts of beer. Infractions of the Volstead law is a more henious crime and merits greater vigilance and prosecution than do the violations of our abortion laws—at least one would so judge after reading a court calendar of cases to be tried.

Just what should be done to rectify the condition that exists we are not quite prepared to state. We do believe, however, that serious consideration should be given to the subject. We believe that it might also be wise to seek the enactment of a law that would require every doctor who attends an abortion case to file a report with the Department of Health, stating patient's name, civic state and address and also whether the abortion was one that had evidently been induced. In this manner it would be possible to attain some definite statistical information and when these statistics became available they might be employed to place definite facts before prosecuting officers that would impel action. The subject warrants careful thought and to that end do we invite your opinions and suggestions.

DOCTOR BISHOP DAY

Service is always recognized. In the little city of Millington with a population of seven hundred, Dr. Bishop served the people of his community, lived with the people of his city, worked with them, played with them and took care of them, young and old, when ill. For fifty years did he serve and yet serves. And for his service and for his citizenship the people paid honor by celebrating in a day of fun mixed with serious thought.

He was a friend of the children, the boys and girls. When one can so live and act among the children that he becomes their friend, we know that he is a friend indeed. In recognition of friendship, interest in the well being of his friends and fellows the community with all its people of the surrounding country side celebrated a homecoming day for Dr. Bishop.

This day and the almost coincident Cameron day at Alpena are clear indications of the attitude of the public relative to the science of medicine. The public recognizes citizenship, sincerity in service and friend-

ship. Cameron day and Bishop day point the way to the mind of the public relative to the science of medicine and the advancement of the profession. Let us not "Put our light under a bushel."

"EMPTYS CUMING BACK"

have you evur sat by the r.r. track
& watched the emptys cuming back?
lumbering along with a groan and a whine—
smoke strung out in a long gray line
belched from the panting injuns stack
. . . just emptys cuming back.

i have . . . and to me the emptys seam
like dreams i sumtimes dream—
of a girl . . . or munney . . . or
maybe fame . . .
my dreams have all returned the same,
swinging along the homebound track
. . . just emptys cuming back.

—Anapolis Log.

At first glance, rather a nonsensical doggerel might be the just appraisal of the above lines—still if you are in an introspective and reflecting mood, read it again and a sermon looms. Emptys cuming back! Who has not seen such an actuality enacted from month to month and year to year in his immediate environment? Emptys cuming back—the boy or girl who frittered away their four years at college; the family hopeful setting out on a new venture; the young lawyer, engineer, doctor, dentist and even preacher, after the lapse of but a few years there we find the average per cent of failure; the budding business genius, the banker, stock-broker, butcher, artist and politician, encountering the test of but a few years of contact and competition with fellowmen and then by the law of averages and maybe fate we find them—these emptys just cuming back. For each there may be a different reason as to why they "come swinging along the homebound track" just emptys nevertheless the tragedy is in evidence and the failure is apparent. Of course we recognize that the psychoanalyst will explain that had they, before they started, been properly analyzed they would have found their proper niche and would not now be emptys cuming back. Maybe so, possibly they did enter unsuited avocations, possibly they did get off on the wrong foot, perhaps the rocky road did exhaust their strength so that they had not the will or strength to hold on—who can tell or who is there that can censor and ignore these emptys cuming back with their dreams of munney, fame, shattered?

If one may be warranted in following the simile still further than is not one justified in observing that while emptys are returned to the home station they are not all consigned to the "scrap and rip track," unless hopelessly wrecked. Many are again reloaded and sent out anew and hereto we find that the second, yes, third and even fourth reconsignment reveals that they are no longer classified as emptys cuming back.

Did we permit, our musings might lead to a lengthy homily based on this text. We are not so inclined on this hot August night. Hence we terminate this reflective mood without drawing a final conclusion or advancing a moral. We leave to each reader to envelope the emptys cuming back with his own veil of deductions.

NEWS ITEMS

From time to time we have imparted the request that members and County Society officers supply The Journal with news items pertaining to medical activities in their community. The purpose of these items being to acquaint your medical friends with the medical happenings in the state and to also cause these items to record our medical progress and history for future reference. The request has not been met with universal response. Sporadically we receive a number of such items and then there follows a long wait. Our news column is the most unstable portion of The Journal. We cannot supply these items neither can we "clip" them. Several times we have employed the service of a "Clipping Bureau" but the results have been very unsatisfactory.

We are therefor again appealing to our members to send in News Items for publication in The Journal. Please assist us in keeping up this part of your organization's publication.

EDITORIAL COMMENTS

We are purposely omiting from this issue the usual Editorial Comments that have characterized our editorial pages. The omission will only be for this issue. The reason for the omission is that we feel that our readers attention should be centered upon our coming annual meeting, the program for which will be found in this issue. We are very desirous that each reader carefully pursue that program and reflect upon the wonderful provisions that have been

made to impart two days of intensive scientific instruction. Never before has such an opportunity been provided for our members. This program is a radical departure from the scientific work that has been provided at former meetings. It is a response to what is apparently the wishes of the profession. In a measure it is an experiment. The results of the Muskegon meeting will determine whether similar programs shall characterize our annual meetings or whether we shall return to the plan of Section Meetings. We are therefore urging that each member give this subject his careful thought, that he will plan to attend the Muskegon Meeting and that he will voice his opinion as to the profit that has accrued to him.

We sincerely believe that no member, desirous of remaininng abreast with scientific progress can afford not to attend our Annual Meeting in Muskegon.

Among Our Letters

NOTE.—*This department is the open forum of our members. Your communications and discussions are welcomed. Anonymous communications cannot be accepted, though at times names may be omitted by the Editor. Personalities will not be printed and responsibility for opinions is not assumed. We invite your interest in this department. Address: The Editor, Journal, Michigan State Medical Society, Powers Theatre Bldg., Grand Rapids, Mich.*

PLEASE PATRONIZE OUR ADVERTISERS

Editor of The Journal:

The Hack Shoe Company began advertising in May. They have just paid for May, June and July advertising. In doing so they say, "Up to the present writing not a 'soul' has made any inquiry for our products from any one of your subscribers. Therefore do not blame us for being slow in paying up. Nuf sed—by Hack!"

We are giving you the advantage of Hack's statement so that if there is any way by which you can assist him in getting returns, we feel sure you will do so. There must be many doctors of your acquaintance in Detroit alone who are interested in orthopedic footwear. It looks as if advertisements were not read when an advertiser says he has not had a single inquiry after three months' publicity.

Yours very truly,

Co-operative Medical Advertising Bureau,
E. W. Mattson, Manager.

Editor of The Journal:

I am just in receipt of your very kind letter of Saturday, inviting me to attend the annual meeting of the Michigan State Medical Society and to speak to your members on the work of the American Medical Association.

I regret exceedingly that I cannot tell at this time whether I shall be able to go to Muskegon. September, October and November are going to be exceedingly busy months with me and I am doubtful that I can get away from the office at the time of your meeting. If, however, you are willing to leave the matter open and let me take pot luck without being placed definitely on the program, it will give me much pleasure to be at the meeting if I can.

Please be assured that I sincerely appreciate the invitation and hope that the meeting is going to come up to your highest expectations. I do not see how you can fail to have a magnificent program with such contributors as are named in your letter.

Very sincerely yours,

Olin West, Secretary,
American Medical Association.

Editor of The Journal:

I have received your kind letter urging me to attend the District Meeting to be held at Klinger Lake Country Club, Sturgis, August 6th. I have also received program and letter from Dr. Warnshuis urging same.

Let me assure you, doctor, that I deeply regret my inability to be with you on that occasion. As you know I am President of St. Vincent de Paul Society of Battle Creek; you also know that this is a charitable society. You may not know, however, that we are looking after the physical needs of about fifty poor families in our city and we are expending upwards of $4,000 each year aiding them. This requires weekly meetings which occur always on Thursday evening. There is also a religious feature of this Society that expects its members to perform certain religious duties; one of which is to attend a three days' Retreat each year if possible. Eight of our members wiwll attend such Retreat this year at St. Stanislaus, near Cleveland, August 13th to 16th. At the meeting on Thursday evening, August 6th, we will make final arrangements for going. There is simply no one that can take my place at that meeting. I must attend. Therefore I cannot attend the Sturgis meeting also.

Please tell the boys how glad I am to see the wonderful progress our great Society in the State of Michigan is making. When I remember back 25 years, to the period of reorganization and think of the work we were doing then, which was good for the time and which required much effort on our part, and when I remember the cheerful manner in which our furthering the organization was met in all the counties of the state, and then compare the progress as the work appears today, I am better and better satisfied with the efforts we put forth years ago to bring about the results we are now enjoying.

True, many of the workers of 25 years ago have fallen by the way and are now laid at rest—their labor in this world is done, but the fruits of that

labor are ripening and the work is being carried on in just such ways as you are doing at this meeting today, that is as it should be. I know all those who were interested in our organization plan at that time with me would be pleased, as I am, to see the wonderful progress our profession is making. Post-graduate work such as this is rendered possible by this great organization affected then and being perfected now. It was the dream of the early organizers, it is the realization of today, it will be the crowning glory of tomorrow, unless, God forbid, ambitions and jealousies creep in.

Again assuring you of my regret because of inability to be present and wishing you and all the members God speed and great success in your efforts and hoping that I may yet attend some of these meetings, I remain,

Sincerely,

W. H. Haughey, M. D.

Editor of The Journal:

As Secretary of the Mississippi Valley Conference on Tuberculosis, permit me to extend to you and members of the Michigan State Medical Society an official invitation to take part as visitors to the Conference which will be held in Lansing, September 28, 29, 30 and October 1st.

As you perhaps know, the Mississippi Valley Conference on Tuberculosis is a meeting of physicians, nurses, social workers and philanthropists who are interested in the tuberculosis problem. They have never before met in Michigan and perhaps will not again be in this state for ten years. Something like a dozen of the states in the northern Mississippi Valley, or immediately adjacent, are members and send delegates to the Conference. An attendance of something like 300 to 500 has been the usual experience in the thirteen years of the existence of this conference.

A special medical men's day is being arranged by the Michigan Trudeau Society for September 28th, and if you should not find it possible to personally be present the entire four days, I have no doubt that this medical meeting to which physicians of the entire mid-west are invited, will offer something of interest to you.

I am certain that your presence will be a compliment to the visiting physicians from our sister states which they will appreciate.

Sincerely,

Theo. J. Werle, Secretary.

A REPLY TO DR. TURNER

Editor of The Journal:

In the August issue of The Journal I read with great amazement "among our letters" an article, "Darwin Evolution Driftwood of Nineteenth Century," signed by "Dr. F. N. Turner."

Darwin's great works on evolution can not be considered as "driftwood of nineteenth century," but among the best inheritance we got from nineteenth century and the most fundamental basis of the present day biology in general and scientific medicine (as part of biology) in particular; all the vaccines, auto-toxins, organtherapy, chemiotherapy, etc., are based on assumption of our close relativeness to the lower specie of animals. Furthermore neither Darwin nor his disciples ever claimed that our ancestry were monkeys, but proved that human beings and monkeys do belong to the same animal species primates, just the same as elephants and mice do belong to the same animal species, but this does not mean that the ancestry of the present day mice were elephants.

The defenders of Prof. Scopes do not want, as Dr. Turner writes, "to force the theory of evolution into the public schools," but want that the teaching of evolution and other sciences should not be interfered with by some ignorant commoner, mostly people experienced in politics but not in science.

Enacting laws against science and prosecuting teachers of science in our big civilized country can not be without influence on the human progress. We use the results of progressive science of the other countries, and the same the rest of our globe use the discoveries made in the United States. Then it is no wonder that the other countries are interested that the progress of science in the United States should not be handicapped.

Dr. Turner asserts that the "church rejected the theory of Darwinism." I do not know to what church Dr. Turner belongs, but as I know even among the clergymen there are supporters of Darwinism and there is not only one church, but different churches with different dogmas.

In conclusion, Dr. Turner writes, "The people of the United States will give Prof. Scopes free transportation to Europe to spread the glad tiding in some anarchistic, socialistic community in Russia or Germany.

At first, Dr. Turner does not yet rule the people of the United States and therefore there is no danger of Prof. Scopes being transported from the United States, and second, Dr. Turner does not know the meaning of the word he uses."Anarchism" in Greek is "an"—no, without—, "archo"—govern, i. e., without any government, but we know that the government of Germany is bred on the same democratic principles as the government of the United States. And even in Russia there is no anarchism, but a government of the Soviets, i. e., counsils of workers and peasants.

Respectfully yours,

M. A. Rivkins, M. D.

The Journal, Michigan State Medical Society, Grand Rapids, Mich.:

As you are, no doubt, aware, the Michigan State Fair will this year for the first time have a Eugenics Department. There will be an exhibit of animals, charts, etc., illustrating the Mendelian law, also a health contest known as the "Fitter Families" contest. Our slogan, "Fitter Families—Happier Homes."

The Eugenics Society of the United States of America is sponsoring the movement and a number of state and city organizations are giving their endorsement and a helping hand. The services of a number of the leading specialists of the medical professions of Detroit are conducting the clinic. This

clinic is unique in that it is a search for healtlh rather than disease.

I am writing to ask if you will, through the Journal of the Michigan State Medical Society, give as much publicity to this movement as is possible, which movement we are convinced should be of great benefit to the human race.

Yours most respectfully,

G. Van Amber Brown, M. D.,

Superintendent Eugenics Dept.

State News Notes

Col. W. L. Keller, formerly in charge of surgical services at the front during the American participation in the World War, and later chief surgeon at Walter Reed Hospital, Washington, where he has done such notable work on surgical diseases of the chest, has recently visited Detroit. A number of the ex-officers of Base Hospital No. 17, located in Dijon, France, during the war, attended a luncheon Monday, August 17, at the Detroit Athletic Club, where they enjoyed a most pleasant visit with their former colonel, with whom they were in close association during the hectic days of the war. Dr. Angus McLean, formerly commander of Base Hospital No. 17, was present, also Major Jas. D. Matthews, formerly of Base Hospital No. 36, and Captain Jas. W. Inches, who has recently returned from Africa and who told many interesting events of progress of medicine in that country.

Physicians are invited to attend the Fourth Annual Physiotherapeutic Convention to be held at the Drake Hotel, Chicago, October 12 to 16, 1925. Papers will be read and discussed by leading physicians of national and international reputation in this field. For particulars see page program in this issue. Demonstrations and exhibits of the latest apparatus and methods employed in physiotherapy will be given. Physicians who are in good standing in their State Medical Association and who can give evidence of the fact are invited. Reservations may be made and programs obtained by addressing the Educational Department of H. G. Fischer & Co., 2335 Wabansia Ave., Chicago, Illinois.

The Michigan Trudeau Society will meet at Lansing on September 28. An exceptionally good program has been arranged for. The Ingham County Society will meet with the Trudeau and will assist in entertaining the out of state men. Members of county societies in adjoining counties are cordially invited. Among those who have agreed to take part are: Doctors Lawrason Brown, Saranac Lake, N. Y.; J. Phillips, Cleveland; J. J. Singer, St. Louis; Robt. Berghoff, Chicago; H. L. Horwitz, Chicago; H. L. Taylor, St. Paul, and Prof. Hallman, Michigan State College.

The officers of the Trudeau Society are: President W. H. Marshall, Flint; Vice President W. R. Vis, Grand Rapids; Secretary E. R. Vanderslice, Lansing.

Reservations for the evening banquet should be addressed to Dr. Vanderslice.

Our Society Business and Activities

HARVEY GEORGE SMITH

EXECUTIVE SECRETARY

NOTE: This Department will each month contain a discussion and report of our Society work and planned activities. Your interest and correspondence as to your problems is solicited.

THE STURGIS POST-GRADUATE CONFERENCE

When the Sturgis Post-Graduate Conference came to a close on August 6, 1925, another milestone of success was added to the records established by the fifteen previous conferences. Eighty-five doctors coming from five counties of south central Michigan and representing the Third Councilor District met for an afternoon and evening of united study. Calhoun, Eaton, Branch, St. Joseph and Hillsdale counties all had a good representation. Some doctors drove more than a hundred miles in order to meet with their fellow men in the study and advancement of the science of medicine.

From the moment that Doctor Ray C. Stone, Councilor and Chairman, dropped his gavel at 2 o'clock and said, "Gentlemen, let us come to order," to the end of the program at 9 o'clock, when he adjourned the meeting, intense interest prevailed. During the intermissions most cordial greetings and discussions went on, fellowships were renewed and expressions to the effect that Michigan was doing constructive work in the interest of the members of its state society were heard. On the side were heard statements like these, "A meeting like this renews one's faith in his profession." "One of the best meetings that I have ever attended." "I can go home and do better work in my profession and in my community." "The speakers were all good and gave us real usable information." "I certainly was glad to meet old friends."

YOU CAN ILL AFFORD TO MISS THIS EXCEPTIONAL MEETING

One of the outstanding features of the conference was the informal part of the program which consisted in short talks by visiting physicians and officers of the State Society. Dr. Sawyer, Ex-President of the State Society and regent of the University of Michigan, said, "It just makes my skin chuckle in joy to see the remarkable work that the State Society is doing. At the University we are interested in training men to become physicians of the highest degree possible and then go out into the field and help the men in the practice of their profession. You can count on the University to back you to the fullest in your program of activity." Dr. B. F. Green, Councilor for the Second District said, "That he was delighted with the work of the State Society and that the new program was one of actual accomplishment for the science of medicine." Dr. F. C. Warnshuis, Secretary-Editor for the State Society described in detail the work of the State Society and pointed out the fact that the State Society was doing everything possible for its members, serving its members, looking after their interests in constructive legislation and helping them to advance their profession in all parts of the state. As a result of the new program of the State Society it stood as a leader throughout the United States in the advancement of the science of medicine." Harvey George Smith, Executive Secretary, presented the Minimum Program adopted by the Executive Committee and recommended to all County Societies for adoption and for accomplishment. He stated that, "A program of work was the basis for renewed life, renewed activity, constructive co-operation in the definite interest of the advancement of the science of medicine in Michigan.

The following program was presented. Following the program is the list of physisicians who registered:

POST-GRADUATE CONFERENCE

District No. 3, Klinger Lake Country Club, Sturgis, August 6, 1925.

1:45 p. m.—Opening Statements. R. C. Stone, M. D., Councilor.

2:00 p. m.—"Physical Examinations," Wm. H. Marshall, M. D., Flint.

2:30-3:00 p. m.—"Fractures," F. C. Warnshuis, M. D., Grand Rapids.

3:00-3:30 p. m.—"Obstetrics — Prenatal Care," Harrison S. Collisi, M. D., Grand Rapids.

3:30-4:00 p. m.—"Diagnostic Adjuvants," Frank N. Wilson, M. D., Ann Arbor.

4:00-4:15 p. m.—Recess.

4:15-4:45 p. m.—"Interpretation of the Physical Examinations of the Heart," Wm. H. Marshall, M. D., Flint.

4:45-5:15—"Acute Abdomen," F. C. Warnshuis, M. D., Grand Rapids.

5:15-5:45—"Obstetrical Anaesthesia," Harrison S. Collisi, M. D., Grand Rapids.

6:00 p. m.—Dinner—Informal talks.

8:00 p. m.—"Diabetes," Don H. Duffie, M. D., Central Lake.

8:30 p.m.—"Hypertension," Frank N. Wilson, M. D., Ann Arbor.

R. C. Stone, Battle Creek.
Don B. Cameron, Sturgis.
Inez R. Wisdom, Sturgis.
Chas. G. Morris, Three Rivers.
Frank N. Wilson, Ann Arbor.
R. H. Steinbach, Battle Creek.
Edwin P. Russell, Battle Creek.
J. R. Kingsley, Three Rivers.
W. H. Marshall, Flint.
Jas. A. Elliott, Battle Creek.
Ray Dean, Three Rivers.
Wilson Canfield, Eaton Rapids.
W. A. Royer, Battle Creek.
R. V. Gallagher, Battle Creek.
William H. Ditmars, Jonesville.
Walter H. Sawyer, Hillsdale.
W. H. Atterbury, Litchfield.
Donald Chandler, Grand Rapids.
C. S. Gorsline, Battle Creek.
Rollin C. Winslow, Battle Creek.
H. F. Kingsley, Battle Creek.
E. E. Hancock, Union City.
W. L. Godfrey, Battle Creek.
Fred W. Robinson, Sturgis.
J. H. Moe, Sturgis.
Chas. R. W. Southwick, Springport.
F. W. Sassaman, Charlotte.
A. G. Holbrook, Coldwater.
W. A. Griffith, Coldwater.
J. J. Holes, Battle Creek.
R. L. Wade, Coldwater.
W. W. Williams, Coldwater.
E. E. Barninger, Mendon.
B. F. Green, Hillsdale.
E. A. Martindale, Sturgis.
L. K. Slote, Constantine.
R. M. Gubbins, Ceresco.
S. E. Far, Quincy.
Kenneth Murray, Battle Creek.
L. E. Verity, Battle Creek.
S. Schultz, Coldwater.
F. W. Stewart, Coldwater.
B. W. Culver, Coldwater.
O. G. McFarland, No. Adams.

ONE WOULD HAVE TO TRAVEL FAR TO HEAR THESE DISTINGUISHED MEN

J. L. Yeagley, Waldron.
J. H. Anderson, Union City.
H. C. Miller, Hillsdale.
W. C. Cameron, White Pigeon.
L. S. Barney, Constantine.
Chas. G. Miller, Sturgis.
F. C. Warnshuis, Grand Rapids.
P. Radebaugh, Sturgis.
M. Parrish, Sturgis.
D. M. Kane, Sturgis.
R. D. Sleight, Battle Creek.
A. A. Hoyt, Battle Creek.
J. E. Cooper, Battle Creek.
E. A. Okes, Homer.
H. J. Prall, Eaton Rapids.
D. V. Hargrave, Eaton Rapids.
Stanley A. Stealy, Charlotte.
V. J. Rickerd, Charlotte.
P. S. Quick, Olivet.
Harrison S. Collisi, Grand Rapids.
C. B. Wasson, Bellevue.
Don H. Duffie, Central Lake.
S. M. Eash, Shipshewana, Indiana.
J. E. Rosenfeld, Battle Creek.
J. F. Holladay, Battle Creek.
Thomas G. M. Gin, Battle Creek, U.S.V.Hospital.
C. E. Sisson, Battle Creek, U.S.V. Hospital.
Bert Trippeer, Battle Creek, U.S.V. Hospital.
Wilson Roose, Mayor of Sturgis.
Harvey George Smith, Grand Rapids.

CASS COUNTY IN THE RING

The Cass County Medical Society is back in the ranks of constructive organized County Medical Societies. And this is the way it happened. The County Secretary on the request of the Executive Secretary of the Michigan State Medical Society called a meeting of all doctors of his county. It was a luncheon meeting. The physical fact of getting our feet together under a table filled with food often leads to the mental fact of getting our heads together for constructive activity. Such was the case in Cass County when fifteen doctors of the eighteen within the county met at a luncheon at Cassapolis and unanimously agreed to renew activities, become acquainted with each other, assume their real responsibilities for the science of medicine, renew friendships and conduct a constructive program of activity for the coming year and become fellow workers in the program of the Michigan State Medical Society.

The Secretary of the Society in his remarks on the Society said, "While the Society did not have a record of accomplishment it did have a record that perhaps no other Society in Michigan could equal and that was that the officers elected fourteen years ago were still in office today." This brought forth a roar of approving laughter and the Society proceeded to reelect the officers for another year. In addition a delegate was elected to the State Meeting and constructive steps taken to begin work in the County Medical Society. At the next meeting, which is to be in the near future, a fellowship reunion is to be held and a constructive program of accomplishment is to be mapped out and adopted by the whole membership.

The minimum program of activity for County Medical Societies is to be the basis on which the new program is to be founded.

Cass County Medical Society, you are welcomed back into the ranks of organized activity. While you, no doubt, have made a record in the past and individually you have, you may now be the first to adopt the minimum program of activity as a part of your State Medical Society activities.

Deaths

Dr. C. Henri Leonard, an honorary member of the Society, was found dead in his bed July 31, 1925. Dr. Leonard was born in Akron, Ohio, March 28, 1850, and received his pre-medical education at Hiram College, Genesee College, and Union College. The last named institution conferred the degree of A. B. on Dr. Leonard in 1872 and that of A. M. in 1882.

His medical training was obtained under Prof. G. C. E. Weber at Cleveland, at the University of Wooster, the College of Physicians and Surgeons and the Women's Hospital, New York. In 1872 he married Cornelia S. Williams at Avons Springs, New York, and in 1874 he came to Detroit, where he made his home for the rest of his life.

His service on the Faculty of the Detroit College of Medicine extended from 1879 to 1910, when he was made emeritus professor. He was for a time professor of gynecology. For six years he was a member of the Library Commission and in 1901 served as President. As a business man he was vice-president of the Detroit Coin Wrapper Company and owned the block bearing his name on John R street for many years. As an author, many writings came from his pen, among them "The Pocket Anatomist," "A Manual of Bandaging," and "Hair, Its Growth, Care, Diseases, and Treatment."

He was for many years a member of the Wayne County Medical Society (serving as its president from 1888-90), Michigan State Medical Society, the American Medical Association, and the Detroit Gynecological Society. He was State Committeeman of the Pan-American Medical Congress.

Of late years Dr. Leonard devoted a good deal of time to astronomy and developed a theory as to the causation of earthquakes as due to the gravitational pull of the sun, moon and other planets much as the ocean tides follow the moon.

The widow, Mrs. Helen Mann Leonard, a son, Charles W. Leonard, and two daughters, Mrs. Robt. B. Schorr and Mrs. Harry B. Simmons, survive.

The Michigan State Medical Society lost in this death, Dr. Seeley, of Mayville, Michigan, one of the most indefatigable workers it has had. Twenty-five years of work without any recompense other than the satisfaction of doing a service that he saw as a duty and as a great need. He gave his time freely to the Society and its success lay heavily on his mind. In the years that he served the Society as Councillor, those with whom he was associated in the work, can testify that he was most faithful in his attendance; and his patience, clear thinking, and good judgment aided much in smoothing the troubles and guiding the activities that has resulted in the present position of the State Society. There was a time in the history of the organization when it was no easy task to finance it. At this time we could dream of great things, but could scarcely approach their beginnings, and, personally, many a time I have done honor, in mind, to the men, who early had the vision of a united profession and who gave of their time so freely that it might be realized.

When I first heard of his death it shocked me. Two weeks before he seemed to be in such good health. After a time there came the thought that perhaps somwhere he would be foregathering with the older men that had gone before and from whom he had caught much of that professional spirit that guided him through life—men like Doctors Connors, Carstens, and many others. I am sure that if this gathering could take place it would. Outside of his home and family there was no association as dear to him as that of his profession. The physicians of this part of Michigan, who knew him most intimately, feel that we have lost a friend and one of our number whom we delighted to honor. The doctor was a family physician, a blending of the old and the new—and may his kind increase. The type who knew his patients from the babies to the grand-parents. He was a counsellor and guide in many ways, not medical. He did not fail to bring to them in their sickness, the new and improved methods of treatment that judgment and his experience approved of.

The doctor began his work where he ended it, and I cannot conceive of anything yielding a greater amount of satisfaction, than being worthy of giving such continuous service. It means hard work, not only the physical work, but much more in the mental work of keeping professionally fit for the responsibility of such a practice. This he did and with it all he never lost his love for the country through which he drove and its beauty was new and fresh to him each morning. Every day, he knew its every limit and every mood and loved them. When family and financial interests made it seem desirable to move to the city the spell of the open fields and quiet woods was strong upon him, and he could not leave them. Just two weeks before his death he told me that Mrs. Seeley and he had decided that the little community in which he lived and worked so many years with its many associations, was the only place that could be home.

County Society News

EATON COUNTY

I wish to send at this time a short report from the Eaton County Medical Society as follows:

Present Officers: President, Dr. P. H. Quick, Olivet; Vice President, Dr. Stanley Stealey, Charlotte; Secretary-Treasurer, Dr. H. J. Prall, Eaton Rapids; Delegate, H. J. Prall, Eaton Rapids; Alternate, Dr. P. H. Quick, Olivet; Medico-legal committee, Dr. J. Bradley, Eaton Rapids. Board of Directors, J. B. Bradley, C. A. Stimson, P. H. Quick, Stanley Stealey, Dr. Sassaman.

Present paid membership, 22.

Physicians non-members are as follows: Dr. F. H. Long, Eaton Rapids; Dr. A. I. Laughlin, Clarksville; Dr. W. W. Norris, Mulligen. We would like to have you investigate these cases and see if they belong elsewhere.

Report of Annual Picnic Meeting, Pine Lake, Olivet, July 30:

This meeting, a combination of a picnic at a beautiful picnic grounds with a wonderful pot luck dinner and followed by a most excellent scientific program was very inadequately attended. Some seventy-nine invitations were issued with resulting attendance of nine physicians. Unless doctors in general put their shoulder to the wheel in putting across our medical meetings we will never get anywhere.

Dr. R. C. Stone, district councillor, was present and gave a talk on the Post-Graduate Conference for this District tot be held at Sturgis, August 6th, and urged all to put forth every effort to attend.

Following this Dr. Alexander Campbell of Grand Rapids, was introduced and gave a most interesting and helpful talk on "Meddlesome Midwifery and Other Obstetrical Problems," which was thoroughly enjoyed by all present.

Those who stayed at home certainly missed a treat. After a general discussion which was completed by Dr. Campbell the meeting was adjourned.

H. J. Prall, Secretary.

JACKSON COUNTY

Lest the local branch be accused of being "dead" or the secretary be blamed for this apparent condition, I hasten to correct any or all impressions in that regard.

The regular monthly meeting of the Society was held on Tuesday evening, May 26th, at the Hayes Wheel Club. Following an hour or so of quoits and baseball, a most delightful dinner was served in the club dining room by the younger men of the Society. A short business meeting was then held during which the names of Doctors Duane Brown of Jackson, and F. F. Ludlum of Rives Junction, were proposed for

membership, voted on, and duly elected. It was decided that an announcement be placed in the local papers each Wednesday for a few weeks to the effect that any person desiring the service of a physician could locate their family doctor by calling the W. A. Foote Hospital office, this being the central point, for the remainder of the summer on Thursday afternoons. This is the afternoon that this Society elects each summer for active massage of Dunlops, Reach Eagles, or what have you, and for Alpine sunlamp treatment on bald heads.

The speaker of the evening was Dr. Martin of the Battle Creek Sanitarium, who gave a very interesting presentation of the subject, "Some Obscure G-U Lesions Presenting Vague or Misleading Abdominal Symptoms." This was well illustrated with lantern slides of radiograms and pyelograms. Following a short discussion of the paper, the meeting adjourned.

The June meeting was replaced by the annual picnic. This was a very enjoyable affair, due to the efforts of the committee. Following a ball game in which a local roentgenologist manifested ocular disturbances while serving as umpire, there were contests for the ladies for which very attractive prizes were offered. More entertainment accompanied a delicious chicken dinner served by the Henrietta Ladies Guild at Pleasant Lake, and dancing was enjoyed by most of the members in the evening.

Vacations spoiled the July meeting and the August meeting will be held next Tuesday evening, August 25th, at the Hayes Wheel Club, on Round Lake. This meeting will be preceded by games and swimming and the speakers of the evening will be Dr. Bruce, the new head of the Department of Medicine at the University Hospital, and Dr. Haynes, the new superintendent of the same hospital.

NEWS ITEMS

Births: To Dr. and Mrs. M. J. McLaughlin, a girl, Jean Marie, May 26th. To Dr. and Mrs. J. J. O'Meara, a boy, Thomas Martin, May 30th. To Dr. and Mrs. Don F. Kudner, a girl, Phyllis Jean, June 15th.

Friends of Dr. Stanley H. Reich of Jackson, will be greatly shocked to learn of his being confined to the hospital with a cerebellar tumor. Dr. Reich first noticed this by an unexpected fall and ataxia and partial blindness followed almost immediately.

The committees announced for the remainder of the year are as follows: September meeting, Dr. John meeting Dr. John Smith, chairman; October meeting, the annual clinic month, Dr. Corwin Clark; November meeting, Dr. H. W. Porter; and the December meeting, the annual banquet and elections, Dr. E. C. Taylor.

Dr. Corwin S. Clalrke of Jackson was recently elected president of the Michigan State Homeopathic Medical Society and Dr. John D. Van Schoick of Hanover was elected vice president.

The only difference between our local delegate to the meeting at Muskegon and the rest of the members, is that one gets his expenses paid, the rest all go.

Dr. G. Rex Bullen, local school physician, is recovering from a fractured wrist, not sustained in the line of duty.

Dr. Morley Vaughn has completely recovered from a Potts' fracture.

Most of the County Society members were included in the June record-breaking class of initiates into the local order of Elks.

H. W. Porter.

MANISTEE COUNTY

Our regular meeting was advanced to Wednesday, August 19th, instead of being held Thursday, August 20th in order to be able to meeting with Executive Secretary Harvey Smith and Councillor Dr. Ricker, who were passing through Manistee.

A fine meeting was held and prospects are good for a full attendance at the coming meeting in Muskegon.

We are thinking seriously of an invitation meeting and clinic day to be held ni Manistee in October, and are hoping to get a little advice and direction from the State office in the preparation of a program for the day.

J. F. Goeke, M. D., Secretary.

HOUGHTON COUNTY

The Houghton County Medical Society held its regular monthly meeting at the Miscowaubik Club, Tuesday, August 4th, with fifteen members present.

After reading of the minutes and allowing of bills for the current month, a motion was made and carried that the Secretary extend the thanks of the Houghton County Medical Society to the combined Rotary Clubs of Houghton and Hancock over the luncheon which was served at the post-graduate conference. The chairman next appointed Doctors Gregg and Kirton as a committee to draw up resolutions over the death of Dr. A. B. Simonson. Regarding the matter of Dr. Holm's membership, it was referred to the Board of Censors to report at the next meeting.

Dr. W. T. S. Gregg gave the first paper of the evening on "Presentation of a Case of Fracture of Pubic Bone X-rays," both before and after operation. The case was fully discussed by all doctors present and the patient examined.

Dr. T. P. Wickleffe next read a paper on "Recent Graduates." Dr. Wickleffe's paper was full of humor and thoroughly enjoyed by all present.

Dr. C. C. Stewart next read a paper on "Resume of Post-Graduate Medical Conference," which was held in Houghton. Free discussion of this was indulged in by those present.

Doctors R. B. Harkness, Alfred LaBine and G. C. Stewart were appointed by the chairman as a committee to arrange for a dinner dance to be held at the Onigaming Club, August 12th, for the doctors and their wives.

The Society then adjourned to lunch.

G. C. Stewart, Secretary.

THE PRESCHOOL CHILD, WITH ESPECIAL REFERENCE TO ITS EMOTIONAL LIFE AND HABIT PROBLEMS

E. J. Huenekens, Minneapolis (Journal A. M. A., Aug. 15, 1925), records the result of five years' experience in a clinic dealing only with the child of preschool age. He is convinced that the emotional

side of the child at this age, which marks the transition from the dependence of infancy to the quasi-independence of preschool life, is of more importance than the purely physical. Neurotic habits among children and adults have definitely increased in the last decade, probably as a result of a variety of causes. Among these causes, factors that especially affect the emotional life of the child may be the increasing number of only children and the confining and repressing influence of apartment and hotel life, with the consequence of adult companionship for the child and lack of normal outdoor play. Added to these is the general, only partly post-war, restlessness which seems a part of the so-called automobile and jazz age. The desire of parents to retain all the pleasures and excitement of youth has resulted in forcing on their children the pleasures and excitement of adult life. These conditions are world wide but seem to be especially true of this country. Emotional disturbances, including such habits as tantrums, night terrors, enuresis, speech defects and finger nail biting may be due to some purely phssical disturbance, but may more often be laid at the door of improper training and poor environment. It is interesting to observe that comparatively few parents recognize this fact, for by far the chief complaints brought before the clinic were "poor appetite," "underweight," "adenoids and bad tonsils," while only a small number called attention to any of the nervous disorders mentioned above. It was generally brought out that the poor appetite was only one of a series of faulty habits, rather than a physical defect, but it was regarded by most parents as due to some organic lesion or a disturbance to be simply rectified with a prescription of some tonic or medicine. It cannot be overemphasized that children fail to receive proper quantity and poorly balanced diets, not because parents are ignorant of the value of vitamins and foods, but because the child refuses to eat them when placed before him. What is needed is not dietetic experts to give long lists of important foodstuffs, but workers with sufficient training in child psychology to advise as to methods by which children can be induced to eat. This work, if it is done at all, must be done by the pediatrician and other general practitioners. In the general routine of the physical care of the infant and child, it is a simple matter to instruct the parents gradually in the elementary lessons of child psychology. These lessons should and can be begun when the infant is only a few days old and must be carried on throughout the child's life by the family medical adviser, whether he is a pediatrician or a general practitioner. His is the important fundamental task. He has the more intimate knowledge of the home life of the child, and if he will equip himself for this new type of service, he will be able to take care of the great mass of comparatively simple cases and prevent a large part of those which become so complex and difficult that a psychiatrist must be called in.

THREE GREAT NATIONAL HEALTH PROBLEMS

Oscar Dowling, Shreveport, La., (Journal A. M. A., Aug. 15, 1925), discusses drug addition, rabies and the venereal diseases. Of the former he says: Even were it possible to enforce the import, manufacture and distributing clauses of the Harrison act and other federal acts pertaining to the import of narcotic drugs, there would still remain the addict. The addict himself falls particularly within the province of the medical man. In short, we might say that the ultimate solution of the addict problem is a medical one. It is obviously the duty of the medical profession to devise means to meet the emergency. Consider that the adidct of whatever standing becomes a liability, the greater because he suffers from a condition which implies the elementary impulse to the most violent acts. Add to these the sufferers from incurable diseases who have become addicted to drugs because of the diseases, but for whom the narcotic is not essential in the average case to relieve distress, and the sociological and medical aspects become at once apparent . All must be cared for sooner or later, whether they land in jail or in the hospital. At present the individual physician must determine the condition of the patient and assume the responsibility of prescribing or of refusing to prescribe, or the sufferer becomes the slave of the drug peddler. As to rabies, he advocates that compulsory inoculation against hydrophobia be made nation wide, and that in order to work consistently a committee be appointed to investigate the status of rabies in the United States and to suggest such other methods for prevention as may seem advisable. Venereal diseases, in his opinion, are gradually increasing. Without money and public backing it is not possible to do much, except as it happens to be part of the general routine of state health work. The venereal clinic and its activities are of primary importance an dis the principle means of spreading knowledge to the masses: The second measure for coping with the venereal diseases is the true suppression of prostitution and of potential prostitutes. This cannot be done by arresting, fining and lodging in jail. The jail is not the place for these women, though they be confirmed or just beginning to tread the downward path. A house of correction or farm, where they could be taken, treated, taught and possibly rehabilitated should be established. Arresting and otherwise tormenting prostitutes is generations old, and it has never been successful and is never likely to be. The third method is medical prophylaxis. The fourth is the treating of social hygiene either to adults or to children.

THE SPINAL FLUID IN THE NEW-BORN, WITH ESPECIAL REFERENCES TO INTRACRANIAL HEMORRHAGES

A study of the spinal fluid of 423 new-born negroes was made by M. Hines Roberts,, Atlanta, Ga. (Journal A. M. A., Aug. 15, 1925). Each of these fluids contained a yellow pigment, bilirubin, which persisted at least until the ninth day, and was intensified if jaundice occurred. It cleared by the fourth week. The intensity of pigmentation was closely related to the physical development of the infant. Sixty cases, or 14.1 per cent, showed the presence of intracranial hemorrhage, two due to hemorrhagic disease, and fifty-eight to trauma. Abdominal labors or operative procedures tend to increase the incident of intracranial hemorrhage. Prematurity is a definite etiologic factor. Only twenty-six of the sixty cases presented symptoms attributable to intracranial hemorrhage. Fifty-four of the sixty children have been followed; twelve are dead, ten because of hemorrhage, two as the result of some intrercurrent infection. Forty-two children are known to be alive ,only two of whom show symptoms due to hemorrhage. The remaining forty seem perfectly normal.

The Journal
OF THE
Michigan State Medical Society

ISSUED MONTHLY UNDER THE DIRECTION OF THE COUNCIL

Vol. XXIV. GRAND RAPIDS, MICH., OCTOBER, 1925 No. 10

Original Articles

PRESIDENT'S ANNUAL ADDRESS—THE MICHIGAN STATE MEDICAL SOCIETY*

C. C. CLANCY, M. D.
PORT HURON, MICHIGAN

In the program of the State Medical Society, it has been the custom for the retiring president to address the gathering, on subjects suited to the occasion of the annual meeting, so, with your kind indulgence I shall discuss in a very brief way some matters that may be of interest, though they possess little not already known to you.

This society, like other kindred societies, came into existence because it was the belief of the profession that it would offer a practical plan of organization having for its purposes intensive study in the field of medicine, discussion of diagnostics and therapy, the promotion of professional harmony of thought and action, and incidentally diffuse a larger regard for the basic virtues of honor and service to humanity. The history of such medical organization appears to have justified the hopes and ambitions of those who planned it, for everywhere the benefits of group study and discussion are recognized, even if they are not always taken advantage of.

In the passing of the period of enpericism and the advent of the dawn and development of what is now termed scientific medicine, we cannot fail to discern evidence of vast changes and advancements in knowledge and methods, perhaps greater than ever recorded in the world's history. And again, in the universal readjustment of all things today, the art and science of medicine finds itself caught in the vortex, and must needs harmonize its activities to meet the altered mental attitude now in command of the situation.

Only a brief scrutiny is needed to reveal and make plain to us that organizational problems of today are not those of even a decade ago. They are vastly more complicated, more numerous, more urgent and apparently more important in their effect upon the present status of medicine. It is no longer sufficient to meet and discuss questions of science only; there are many other matters pertaining to ethical, social and business principles to be considered and wisely disposed of, if the profession of medicine is to hold a commanding position in the present scheme of affairs. To command with success predicates the possession of skill and power, which challenge the respect and good will of others, and that skill and power must rest upon the solid foundations of truth and integrity, free from superficiality and pretense.

The physician of today and of the future shall justify his claim to efficiency by the character of his work and the principles he espouses, if the structure of medicine shall stand unimpaired, in the estimation of a critical and not too affectionate public sentiment. And it is quite obvious that not alone is it essential that the public shall be enlightened in their judgments, but it is equally important and as essential that all engaged in professional work shall possess at least a liberal knowledge of the scientific requirements of medicine. At this time we are fortunate in having a plan in operation whereby medical conferences are being held throughout the state, which fact places Michigan in an advanced position in the matter of dealing with the problem of post-graduate needs, and it is fair to assume that this effort will prove successful, if there is generous support of the movement given by the profession of the state. But, is the post-graduate service we offer at the present time sufficient, and will it cover in a satisfactory way the demand for greater opportunity for study and improvement? It is quite probable that a wider latitude of opportunity, with added facilities included, might prove more attractive and suit the tastes of a considerable number of the physicians of the state.

Medical organization in the broadest sense, it would seem, offers the promise of better results in the way of meeting the needs of the present situation, for when we remember the large number of physicians still outside the ranks of the State Society, we can easily realize something of what their membership would mean in the work of carrying on the campaign

*Delivered at 105th Annual Meeting Michigan State Medical Society, Muskegon, Sept. 8-10, 1925.

before us. And with this thought in mind, may I direct your attention to some of the things your State Society has tried to do during the year, and at the same time present these activities as reasons why every medical practitioner in Michigan should join, not alone for his own personal benefit, but likewise to aid in the good cause of strengthening the Michigan State Medical organization.

LEGISLATION

Presumably a modicum of satisfaction is felt by the members of the State Society in connection with the success attained during the last legislative session, in preventing the enactment of prejudicial and harmful legislation. The statement may be accepted that this achievement was largely due to our very efficient legislative committee, and too much credit cannot be given them for the commendable activity displayed in the work assigned to them. The very few medical men in the legislative body exhibited tact and good judgment in dealing with the question, and succeeded admirably in altering much sentiment already apparently favorable to the cults. May I suggest at this point, the benefit to be derived from having a much larger representation of such medical men of caliber in all succeeding legislatures. The State organization gave every assistanee within its power, and handled the situation wisely and well through correspondence, personal contact with County Societies and members, and meeting emergencies as they arose, thus affording an additional proof of the value of having an active organization. A survey of the last and preceding legislative experiences quite clearly indicates that sooner or later the cults are likely to win their battle for equal recognition, unless some constructive legislation disqualifying them is enacted by the people themselves. And as such legislation predicates a change of the public mind in respect to their own safety and needs, with perhaps the removal of some doubts entertained by them as to the efficiency of the medical profession, it seems inevitable that the State Society shall take the initiative in the movement to establish a form of educational standard, which shall have universal application to the treatment of the sick. I am advised that a bill of this character has already been prepared and might be available for consideration, in the event of any action being taken in the future by this body looking toward constructive legislation in this matter.

There are many reasons why the battle with the cults should be avoided as soon as possible, among them being the humiliating experience of being regarded by the public as competitors of a class of uneducated persons, almost tacitly admitting an equality of fitness through contest with them, and as a result having to submit to the charge of being actuated in this matter by commercial motives. Frankly, it would appear to me a much preferable policy to make a strong effort in the line of securing the adoption of an educational standard relating to medical practice in Michigan. This is a matter of very great importance, and it seems that the profession of the State might with propriety and profit take a larger interest in it in the future, and thus bring forcibly to the public mind the assurance and the conviction that their own health and welfare demand legislation, which will protect them against the imposition of under-educated medical care in the future.

POST-GRADUATE CLINICAL CONFERENCES

This activity was established less than a year ago by the State Medical Society, and happens to be one of the activities made possible by an increase in membership dues; already it has covered every county of the State in a series of meetings held at convenient points, having the best talent of the profession giving their time and knowledge in support of the movement, and as was anticipated, these conferences have proved very popular and have been well received by physicians generally. It may be, perhaps, that the greater profits to the members lies in the fact that these post-graduate opportunities are brought practically to the homes of all, making such privileges possible and convenient without financial outlay and loss of time to many who otherwise might not find it easy to seek the privilege elsewhere.

At the present moment it seems no exaggeration to predict that post-graduate conferences, if made a continuing activity of the Society, will augment the general and special store of knowledge of the profession, redound to the credit of this Society, and likewise add that which is of value to the prestige of the State. With your permission I would like to direct your attention in this connection toward the subject of securing post-graduate study, additional to that now provided in the medical district conferences. It would seem feasible to extend this privilege beyond present limits, through arrangements made with an educational institution, under terms and provisions that would in no wise embarrass the success of the work being carried on by district conferences now in operation. The establishment of an organized educational connection would appear to offer greater opportunity to the profession at large, to secure advanced training in subjects in which they have greatest interest, and at the same time add to the sum total of medical progress. In any event, since we are giving serious thought to the subject of medical advancement, a free discussion of plans by which it may become available is apropos, and might prove of real value if taken up at this time.

THE JOURNAL

In this publication is found an important asset of the State Medical Society. The basic reason for its being is service, in season and out, to some three thousand members, and its value to each of them cannot easily be computed in dollars and cents. Editorially, it preaches sound doctrines always in its discussion of things medical; it keeps abreast of the times in respect to the latest scientific thought, and its subject matter is presented to the reader in clear and forceful language. As a medium of communication between its clientele and the outside medical world, it appears to have earned a most favorable acquittal of duty; as the voice of the central organization and component bodies, little if any criticism may be made, for its outstanding worth rests in the fact that it offers an open forum in which the voice of every member may be heard.

While the Journal has always enjoyed the good opinion of its readers, its best record as a depot of information and distribution has been made this year. More activities having been established by the Society, a larger field opened, with the result that the Journal has achieved a standing in medical magazine circles of which it may well be proud. For instance, in a recent issue of the New York State Medical Journal may be found an editorial review of the activities put in operation in Michigan by its medical organization. Most favorable comment is made upon the work done here and a splendid tribute is paid to the Journal and its editor. Is the Journal quite fully appreciated by the profession of Michigan, I wonder? If we read its pages carefully we cannot escape knowing what the State Medical Society is doing and whether or not its activities are being fully cared for.

JOINT COMMITTEE ON PUBLIC HEALTH EDUCATION

Public health education in Michigan is a matter of real concern to the medical profession, as well as of deep interest and profit to the public at large. It has been carried on for several years, under the direction of a joint committee, representing a number of participating agencies, each making its contribution of service in the summary of results. An appraisal of the work done during this year discloses the fact that it has been very successful, and that carries with it the thought that it has probably benefited the people and the profession in a larger sense than any other individual activity in which we are directly interested. The campaign, as conducted, has brought to thousands of persons a knowledge of the purposes of this activity, and the manifest approval and enthusiasm shown by the public wherever these lectures have been given, indicate that a splendid work is being done. Through its various agencies it makes contact with the people in all communities, a fact the desirability of which is apparent, and it offers promise of even greater results in the future. The medical representatives engaged in joint committee work have been active during the year and this society is indebted to them for the service rendered to the profession and the public.

COUNTY SOCIETIES

The County Society occupies a most important relation to the State Society, and because of this fact it is entitled to and should receive most kindly consideration in its work at the hands of the State organization. It may be that its members do not fully appraise their responsibilities and the value of the service they may render to the State Society, but these values and responsibilities do exist, and must be reckoned with.

It is the unit of government and without it the State Society could not function, and in fact, it could hardly exist. In almost every activity of the parent body concerned with the many interests of the profession, the County Society has to do its part if success is to be attained. The interest felt and the activity shown by County Societies accurately measure the accomplishment of the organization as a whole. The full co-operation of County Societies is so essential to the business of the State Society that everything possible should be done to assist them in their work, and with the purpose in view of encouraging a greater enthusiasm, through a greater knowledge of what the State Society stands for in the economics of the profession of this State. There are so many problems to be dealt with where the County Society contact is essential, notably in all questions relating to legislation, in which the County organization can render invaluable service through their easy access to and intimate association with members of the legislative body.

In a recent issue of the Journal a working program for the use of County Societies was set forth by the editor, with his comments concerning its value and the desirability of putting it into immediate service. This program, if carried through, will do much to improve the work already being carried on in these bodies, and if it is made a success, that success will most probably rest with the County representatives who are taking part in this convention. In connection with the problem of securing co-operation between the County Societies and the State Society, very direct contact will have to be made. Pursuant to the plan adopted by the executive committee, an additional member of the secretarial staff was appointed, an executive field secretary, whose work it is to look after the field work of the State Medical Society. His work seems very necessary to the progress and welfare of the organization, and in my judgment, should be continued.

MEDICO-LEGAL PROTECTION

This department may be regarded as of special interest to the average physician. It is only indirectly concerned with science per se, but it stands guard over the possessions of the physician and his family, affording protection against unjust claim made by malicious and dissatisfied patients. Another phase is that the medico-legal department assists very materially in the preservation as well as the protection of the physician's professional reputation.

Many cases of this nature come up during each year and they have been successfully managed through the work of the committee in charge of the department, with the aid of competent legal advisors, and it goes without saying that no one will fail to appreciate the help given in every case.

In this brief recitation of some of the many activities managed by your State Society, I am compelled to pass over others of great merit, and I regret exceedingly the need for doing so, but your time in this convention is limited, and much that might be said I shall have to remain silent upon. However, it is my desire at the end of this summary to stress the need for action in respect to a few matters that seem of immediate importance and concern. May I emphasize this need for action in respect to legislation, the work of County Societies, postgraduate clinics and public health education.

The Michigan State Medical Society, if made efficient, constitutes the medium through which may be built up a force for good, not alone to the profession at large, but likewise to the people of the State as well. The efforts made in this direction in the past have brought us to the present stage of efficiency, but much remains to be done yet before we have reached anything commensurate with our ambitions and the perfection it is our hope to attain.

In conclusion I beg to acknowledge the kindness and consideration shown me by all with whom I have come in contact while occupying the office of President.

THE HOSPITAL AND THE PUBLIC—

W. A. EVANS, M. D.
CHICAGO, ILLINOIS

Social standards are advancing. No portion of these standards is advancing faster—if any there be that is advancing so fast—than the standards of health.

The average span of life is increasing. The average age at death is 12 to 15 years greater than it was 70 years ago. The average length of the period of efficiency is markedly longer. Death rates are lower. Sickness rates are less. Certain diseases have virtually disappeared. Tragically devastating epidemics such as the black plague, the Picardy sweat, the dancing mania, cholera, pneumonic plague and typhus, or jail or starvation fever are nothing more than memories. Even such American institutions as yellow fever has gone and people are no longer terrified by smallpox and malaria.

Health standards are higher and men work with greater efficiency than ever before in the history of the world. In no other field has man shown equal success in conquering the enemies of his environment. Here more than anywhere else man has proven his right to dominate the earth. If, as we look about us, we find reason for gloom and dire prophecy, we find the tonic for our depression in the optimism which comes to us when we contemplate the health field.

I am sure all health men will agree that in the field of preventive medicine there are no impossible situations—no diseases that cannot be conquered. There are unsolved problems, it is true, but in the past, every problem undertaken, has been found a solution. And so it will be in the future.

This is not boasting. It is an appraisal of the future, based on the experiences of the past. For the attainment of these results, many factors have been at work. Some of it has been due to a general growth of intelligence and knowledge. Some to elevation of standards.

The improvement in general health has been the result of both indirect and direct causes. Among the direct causes have been the work of health departments, of practising physicians and of research work done in laboratories, universities and elsewhere.

The indirect causes are more intangible, but they are more or less potent. General growth in intelligence, elevation of standards of earning and living have contributed.

Statistical studies of individual diseases show a period of general decline, followed by a rapid drop. This period of preliminary general decline is due to increase in earnings, to lessened squalor, ot higher standards of intelligence and of health. In the same category belong the development of parks and playgrounds, of gymnasia and what may be termed the play movement.

Hospitals stand in between the direct and the indirect causes of health improvement. Some part of what they have done falls in the direct category and some in the indirect. In that they have cared for illness and particularly illness from communicable disease, they have contributed directly. In training

*Address delivered at the Opening of Butterworth Hospital, Grand Rapids, Mich., May 22, 1925.

physicians, nurses and social workers, they have also contributed directly. They have contributed indirectly in that they have elevated standards of the care of the sick, have lessened the virulence of disease and have educated the people.

THE NEED OF HOSPITALS AND THE SUPPLY

Many health surveys have been made. These have been made in various parts of the country, on various strate of society, and at various seasons of the year. They have been made in various ways and by various agencies.

It is possible that the results of these surveys give fairly dependable criteria for the measurement of health conditions in any part of the country. These surveys show that about 3 per cent of all the people are sick at any given moment. Of the sick, about one-tenth are sick in bed. It is sometimes figured that the number in need of hospital care is one-tenth of the number sick. The estimate of the number needing hospital care is more difficult to determine and less definite than are the other estimates.

Opinion and sentiment relative to hospital care is always in the flux. But a few years ago hospitals were looked on as jails or pest houses and being sick therein was dreaded or even abhorred. At the present day, hospitals stand better. They are at least respected. The service rendered in them has the public confidence. A temporary residence in one causes no more anxiety and anticipated disaster than is associated with the illness that makes hospital residence advisable.

Some suggestions as to the reasons for this transformation and, in addition, some thought as to further lines of improvement, will be made elsewhere.

The statement in order just now is that the changing attitude of physicians and people generally toward hospitals makes it impossible to estimate accurately just what proportion of the sick 3 per cent of the population are in need of hospital care.

Various reports on the hospital facilities of the country have been made in recent years. One of these is that made by a committee of the American Medical Association and to be found in their Journal. Those who want to investigate the subject further should read that report. The American College of Surgeons have a great amount of information gathered by first hand investigators and available for those who need it. The library of the Modern Hospital has been gathering data on American hospitals for several years. An interesting document is a recently issued report on the New York City hospital situation issued by the Committee on Hospitals of the New York Academy of Medicine. I quote the following from that report:

> "In New York City (Greater New York) there is one hospital bed for each 175 inhabitants. Greater New York has hospital beds for one-fourth of the sick.
>
> The Chairman of the State Department of Charities estimates that in New York City 8.4 per cent of the sick are cared for in hospitals. There has been an increase in the utilization of hospitals in the last decade. Concomitant with the growth of the public health movement there has been a decline in the death rate.
>
> The tendency is away from the use of hospitals for the care of young children. This tendency and the average lessening of the general death rate from certain diseases, should be taken into consideration in hospital planning. There are enough hospital beds in New York City for consumptives. Generally speaking, there is no need for immediate increase in special hospitals. There is need for more general hospitals, and hospitals for mental cases. There is need for readjustment of types of hospital facilities.
>
> And, finally: there is a crying need for adequate hospital facilities for people of moderate means.

Before leaving the subject, I recommend that those interested in the prevalence of disease and defects read the several publications made by the Surgeon General, United States Army and others connected with the Army soon after the World War. I have in mind the report of the Surgeon General on "Defects Found in Drafted Men."

WHO IS SERVED BY A HOSPITAL

A hospital serves:

1. The sick.
2. The medical profession.
3. Those who need the training it gives.
4. The health department and, through it, the general public.

This is the usual order for a general hospital not specializing in contagion, nor directly serving a health department. A contagious disease hospital connected with a health department would place Group IV at the head of the list.

FUNCTIONS OF A HOSPITAL

The functions of a hospital are classified as follows:

1. Care of the sick.
2. Training of physicians, nurses and dietitions.
3. Teaching the chronically sick to care for themselves.
4. Protecting the community against communicable disease.
5. Lessening the virulence of disease.
6. Educating the community.

7. Research—clinical, medical, social and laboratory research.

As to four of these functions: Care of the sick and training physicians and others, research work and control of contagion, I will have nothing to say. Other speakers during this health week have covered them. I have some thoughts to ocer you on the other three.

TEACHING THE CHRONICALLY SICK TO CARE FOR THEMSELVES

There is a very large number of people who are not in perfect health, and who can never be 100 per cent well, but in whom there is salvage. Men are not built on the specifications of Oliver Wendell Holmes' "One Hoss Shay". When a man has crippled kidneys, there is a fair chance that he may be otherwise organically sound. A man with diabetes may still be of great service to the world, his family and himself.

In 1897, Dr. William Osler wrote on "The Advantages of Having Bright's Disease". He told of a very prominent patient of his who, after being pronounced down and out, lived out a long life of great usefulness to the Dominion of Canada. Some of those he cited might have lived less useful lives and some would have died earlier had they not learned they had Bright's and readjusted their lives.

In thinking of diseases and conditions which cripple, but do not have much tendency to kill, I think of diabetes, chronic Bright's disease, epilepsy, myxoedema, locomotor ataxia, infantile paralysis, asthma, heart disease, apoplexy. For certain reasons I will attach tuberculosis to this list.

Let me illustrate with diabetes. When a diabetic goes to a hospital he has a series of tests made to determine his sugar tolerance and his metabolic balance. Next, some time is spent in adjusting his work, his weight and his diet. He then takes a course in dieting and urinalysis with himself as the subject. Meanwhile, he has been examined as to the soundness of his organs and his vital capacities and peculiarities. He is now ready to return to his home. A properly organized system will provide medical supervision and visiting nursing service in the home while the man carries on.

The same method will be applied, or is, to the consumptive who is preparing for life without relapses after arrest of his disease. It will be used in myxoedema, nephritis, heart disease and a long list of chronic diseases, some of which have been mentioned.

As I see it, the future here will be a new field of medicine. It will have its own literature. A library of books—some for physicians, some for visiting nurses, but mostly for the chronic sick—will be written under the general head of the "How to Live With" series. New methods and new ideals will come into existence.

This type of service can be best begun in, and organized for, in hospitals. When it becomes an established feature of the practice of medicine, hospitals will be in the forefront.

LESSENING THE VIRULENCE AS WELL AS THE PREVALENCE OF DISEASE

At once your minds run to the prevention of the communicable diseases. The Courts—reflecting public opinion as well as interpreting the law—have repeatedly held that the rights of the community in a man sick with smallpox, are greater than the rights of the man himself in himself, or the rights of his family in him. When it comes to protection against contagion, community rights are paramount.

All agree that hospitals have contributed their part to the lessened prevalence of contagious disease. I wish to call your attention more to another phase of the question—the diminished virulence of disease.

DEATH RATE OF CHICAGO FROM ALL CAUSES, FROM CERTAIN DISEASES AND AT CERTAIN YEARS FOR FIFTY YEARS

Year	Per M All Causes	Per M Under 1 Yr	Per M 1-4 Yrs	Per 10M Typhoid	Per 10M Tuberculosis
1873	25.15	9.39	5.54	7.16	24.41
1883	19.92	6.64	3.49	6.22	19.83
1893	21.61	6.48	3.38	5.35	21.23
1903	15.62	2.87	1.6	3.18	18.25
1913	15.06	2.95	1.54	1.06	16.49
1923	11.7	1.7	1.443	1.9	7.27

Year	Per 10,000 Scarlet Fever	Per 10,000 Diphtheria	Per 10,000 Whooping Cough	Per 10,000 Measles	Per 10,000 Smallpox
1873	3.03	6.21	4.08	2.76	13.61
1883	6.9	14.09	1.59	.76	.79
1893	2.63	11.71	1.68	1.87	1.89
1903	1.6	3.44	1.46	1.49	.15
1913	3.86	4.06	.43	1.25	.004
1923	2.8	1.26	.47	.7	.003

Dr. O. H. Rogers, of the New York Life Insurance Company, in addressing the Life Insurance Presidents, gave the following as the reduction in death rates of the more important diseases. The figures compare the rates per 100,000 population, of a given age, in the United States for the years 1900 and 1922, for ages under 10, except as to rheumatism, consumption, Bright's disease, apoplexy and heart disease. The age period selected for these five is 35 to 44. The reason for the shift in age groups is the small number of deaths in age under 10, and the larger number in age 35-44.

Cause	1900	1922
Smallpox	1.9	.5
Measles	54.9	19.7
Scarlet Fever	44.6	12.3
Diphtheria	191.2	60.2
Malarial Fever	11.7	5.8
Typhoid Fever	19.	4.3
Diarrhoea Dysentery	589.4	172.9
Pneumonia	364.	179.9
Rheumatism	17.3	6.1
Consumption	268.5	124.6
Bright's Disease	84.1	46.8
Apoplexy	32.1	21.7
Heart Disease	89.4	75.2

With respect to Bright's disease, appoplexy, and heart disease, while there has been a marked decrease in the death rate of all ages under about age 60, there have been increases of the rates at all ages over 60.

Disease is less virulent than it once was. The case fatality rate is lower. If a man gets sick, the chance that he will get well is better. The proof comes from several sources. There is statistical proof that the case fatality rate is lower in almost all the ordinary forms of disease with the exception of pneumonia.

A few years ago, to estimate the number of cases of typhoid fever, we multiplied the number of deaths by ten. Now we multiply by fifteen. The factors used in estimating the cases from the deaths has had to be changed as to measles, scarlet fever, diphtheria, smallpox—in fact, as to almost all diseases.

There is historical proof. Let any one interested read Cellini's Autobiography, and there learn that syphilis in that day was an acute, febrile infection, resulting directly in many deaths. Let him there witness the efforts that syphilagraphers are now making to determine just what is the indirect death rate from syphilis, there being almost no direct death rate. Or, let him read Defore's Diary of the Plague Year, or the account of measles in The Friendly Islands.

There are several factors which are contributing to the decrease in virulence of disease. One of them is the hospital. Time was when hospitals were regarded as pest houses. Operations done in them nearly always resulted in infection. Hospital gangrene was a common disease. So was hospital erysipelas in the surgical wards and its sister, puerpal sepsis in the obstetric wards.

In that day, medical hospitals were afraid of surgical wards because, as we now know, of the pus infections they brought in. The surgical operating room was first cleaned up. Soon the surgical wards followed. Now a surgical hospital or a surgical ward is almost immaculate. The surgical wards are now afraid of the medical. In the days of Semmelweiss and Oliver Wendell Holmes, the obstetric ward was a charnel house. Now the obstetric ward is almost on a par with the surgical. When the present warfare over puerpal sepsis has been fought out, and the gains have been fully incorporated with practice, the obstetric wards will be on a par with the surgical.

Close statistical studies of puerperal fever, such as that of Eichel, shows considerable ground for dissatisfaction. There is more puerpal sepsis than there should be. This is more evident in certain regions than in others, but there is more than there should be in the large city, as well as in the small city and the country; among hospital patients as well as among private patients; among patients attended by physicians, as well as those attended by midwives.

But these studies compare present considerations with those of 10 to 15 years ago. When comparison is made between present conditions and those 50 years ago, ground is found for the greatest optimism. Obstetric wards are now clean and they are destined to become more so.

The elevation of standards of cleanliness in the medical wards has also been productive of results.

Most forms of disease are milder because hospital patients are bathed more frequently and more thoroughly. The standards of the hospital spread into the homes of the sick.

In 1916 and 1917, Vaughan and Polener called attention to the necessity of shielding measles patients from secondary infection with streptococci. Disregard of this caused a widespread change in the bacteriology of pneumonia, for a period of a year or two. The need of shielding cases of pneumonia from cocci, differing from the infecting organism in the cases in question is recognized. Other illustrations could be given.

Elevation of sanitary standards. Better protection of the sick against cross infection. Doing as to all disease what has been so well established as to scarlet fever and whooping cough—all these have been large factors in decreasing the virulence of disease.

The results of infection are still important.

We have lost our rather wholesome fear of smallpox. Diphtheria is not feared as it once was. There are even people who voluntarily expose their children to measles. Scarlet fever is not much of a menace. In fact, our general attitude toward infection does not make for community safety.

In fact, Millard, of Leicester, England, improperly regarded by many as an anti-vaccinationist, complains that a long continued vaccination policy has made smallpox so mild that the public no longer fears it and, in consequence, smallpox control has been made more difficult.

The last number of the American Journal of Public Health carries a discussion of the proportion of all deaths which result from bacterial diseases, participated in by Hill and Hague. Hill says that 75 per cent of all deaths and 90 per cent of deaths due to all diseases, are due to infections.

But to arrive at this figure he includes many bacterially caused diseases which the people do not group with diphtheria and measles and many indirect effects of contagion not so regarded by most persons. For instance, he includes the pneumonias, all forms, as well as all forms of tuberculosis, the indirect effects of syphilis, most forms of heart disease and nephritis. He quotes Banting as saying that most cases of diabetes are the result of bacterial injury to the pancreas.

The harmful effects of infection are not limited to the immediate effects of a particular disease or group of diseases. Dr. O. H. Rogers, in speaking of Bright's disease and apoplexy, says: "We have seen that the later age groups are those in which not only the weight of the infections, but the crippling after effects of them bear most heavily."

The decrease in the virulence of disease is largely because men are more cleanly than they formerly were—more cleanly in, their homes and in their persons. The sick are cared for in a more cleanly fashion than they were. This has resulted in fewer infections, in fewer cross infections, in lessened virulence in disease, as well as in lessened prevalence. To much of this hospitals have contributed materially. Especially is this true of the more cleanly care of the sick and the prevention of cross infections. The standards of care which they have set have been carried into the homes.

In the light of the statements quoted from Hill and Rogers, hospitals still have work to do in this direction.

EDUCATING THE PUBLIC

I think the statement can be sustained that a well run hospital is an educational center for the community in which it is located. This is more easily proven with consumption hospitals than with others. When a community is selected as a site for a consumption hospital, there is generally some opposition. To meet this opposition, it has been necessary to know the facts. Experience has proven that the community in which a consumption hospital is located has less consumption develop among the people than it did before the hospital came and than do similar communities not the site of hospitals. The hospital has educated the community.

Similar results follow the location of a hospital so far as other diseases are concerned.

Hospitals have educated through their social service department.

Only yesterday I witnessed the work of a social service visitor, following up cases of diabetes formerly in Cook County Hospital. This lady demonstrated to the family how to select and how to prepare the food of a diabetic. She taught them calories, percentages of starch and relation of fatty and introgenous foods to starchy foods and to acidosis. That family will never forget some of the food chemistry they learned.

The people who have been sick in a hospital, and their friends, apply some of what they have learned in the home.

The hospitals of the future will be far more educational in their influence than they have been. They will be co-ordinated with other hospitals and with the local health department in plans which, while primarily for the care of the sick, will be increasingly educational.

In fact, the word "health" is due to be broadened. It will cover more of the field of efficiency. Disease per se will dominate it less. Symptoms will be less guiding. Periodic stock taking and habit training will be more emphasized. I would not be surprised if hospitals, health departments and local universities will be co-ordinated.

The hospital of the not far distant future will have lecture courses on health and personal hygiene. They will touch life in many places. They will be centers with out-patient departments and social service workers.

UNIVERSITY COURSES IN HOSPITALS

Dr. David Stewart, of Manitoba, is responsible for a suggestion that is new to me. It is that hospitals be co-ordinated with universities, as well as with medical colleges and health departments. He suggests that universities give courses of instruction to convalescents and chronics, to equip them as compensation for the limitations due to their disease. The idea applies especially to hospitals for chronics, but some sort of university extension work might be availed of to make pleasant and profitable the stay of convalescents in other types of hospitals and sanitaria.

We are acquainted with branches of ordinary public schools in hospitals that care for tuberculous children and in hospitals for crippled children. The suggestion from Stewart may not be more radical than was

the suggestion of schools for adults as a part of the grade school system. If we do not want to go as far as Stewart suggests we can at least make our hospitals into health schools.

GRAND RAPIDS AND BUTTERWORTH HOSPITAL

Butterworth Hospital, as it stands, is a magnificent institution. Its equipment is scientific, up to date and artistic. There is a touch of comfort and artistry about it, as well as a pervading atmosphere of scientific efficiency. It is equipped with a forward-looking staff.

It is located in an intelligent, well-to-do philanthropic community. You have a good health department. There are other excellent hospitals here. I understand that you have one hospital bed for each 200 population. This, considering your relatively small, submerged, population, is about the hospital equipment that the Committee from New York Academy of Medicine reports as being about sufficient for that city.

As with New York, doubtless you need some readjustment of your bed service, but that is a matter of secondary importance.

You are well set to assume leadership in the onward march of hospitals into new fields of service to the communities in which they are located.

THE TRANSFUSION OF UNMODIFIED BLOOD—DESCRIPTION OF A NEW INSTRUMENT WITH REPORT OF EXPERIMENTAL AND CLINICAL OBSERVATIONS IN ITS USE

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INTRODUCTION

The first authentic blood transfusion in man was described by Lower[1] in 1667. This was accomplished by the insertion of a silver pipe into the artery of a sheep and the vein of the patient. Since this pioneer work much has been written about the use of mechanical devices designed to simplify the surgical procedure, to measure the quantity of blood introduced and to diminish the danger of clotting.

Progress in the development of this therapeutic adjunct was slow and it fell into disrepute because of the frequence of severe and even fatal reactions. In 1901 Landstiner[2] reported the occurrence of agglutination of the red blood cells when placed in contact with foreign serum. Thsi was shortly followed by the epochal contribution of Moss and Jansky[3], who demonstrated the existence of isohemagglutinins. Human blood was divided, thereby, into four fairly definite groups according to its agglutination reaction. This placed the procedure on a scientific basis and largely eliminated the hazard previously associated with it. Since the value of blood transfusion has been established, the effort to simplify the technic has resulted in the development of two definite methods, that is the use of modified and unmodified blood.

TRANSFUSION WITH MODIFIED BLOOD

In 1915, Lewisohn[4] developed the technic for transfusing modified blood by using sodium citrate as an anticoagulant. Because of its relatively simple technic, this method became the one of choice, and the transfusion of blood became a procedure for the internist rather than an operation for the surgeon. This method, however, has three serious disadvantages,—first, the introduction into the blood stream of a foreign material; secondly, the use of an anticoagulant is an undesirable feature in hemorrhagic diseases where the blood platelets are not normal; and thirdly, reactions frequently occurred. A conservative estimate of the average number of reactions following this method has been placed at 30% (5, 6, 7, 8 and 9).

In order to reduce this high incidence of reactions following the transfusion of carefully matched blood, various papers have been presented advising minimal agitation of the drawn blood and protection from chilling previous to giving it to the recipient. Special complicated apparatus[10], with multiple connections and tubes, for citrating the blood within the needle has been described but without any convincing evidence whatever that this in any way reduced the incidence of reactions. The fact that sodium citrate in transfusions results in such frequent reactions led investigators to seek other anticoagulants that might be used more successfully. In 1918, Howell[11], described an anticoagulant, heparin, isolated from the liver, and Mason[12] has recently reported a series of transfusions using it in an impure form followed by almost 100% reactions, some of which were very serious. More recently Howell[13] has reported on a purified heparin which may ultimately, to a certain extent, obviate the objections raised to the use of modified blood.

TRANSFUSION WITH UNMODIFIED BLOOD

Though the technic of unmodified blood transfusions has been much more compli-

cated than that of modified blood, its results have been strikingly better in point of transfusions, using the Unger, Lindeman and Kimpton and Brown technic, have been reported in which the incidence of reaction varied from 5 to 15 per cent[14 15]. The more universal adoption of one of these methods for routine transfusions has been retarded only because of the technical difficulties associated with all unmodified blood procedures. In endeavoring to eliminate the technical obstacles in the latter method, many noteworthy procedures have had extensive trial.

The first of these was the direct anastamosis of the donor's and recipient's blood vessels by means of sutures as done by Carrell, Crile, and others. Following this cannulas, by which the donor's artery was inverted and inserted into the recipient's vein, were used. The most popular of these was that reported by Crile, 1909[16]. This same year Brewer and Liggett[17] and Brown[18] reported their paraffine-coated glass cylinders. Lindeman[19], 1914, revived von Ziemsson's[20] syringe-cannula technique which consisted in the aspirating of blood from the donor to a syringe and injecting it into the recipient. The cutting down on the vessels was soon eliminated in these two latter methods by substituting needles for cannulas.

In 1915, Unger[21] described his stop-cock syringe apparatus. This is so constructed that, with one assistant, salt solution can be directed into the opposite tube while the operator is aspiring or injecting a syringe full of blood. This technique has recently been modified by Brines[15]. The year 1920 brought out a new type of apparatus so designed that the flow of blood in the desired direction would be automatic and independent of the operator. The first of these was that of Stanley[22] using the ball valve principle, and was followed by James[23] who experimented with ball valves of different size and specific gravity endeavoring to arrive at a combination that would be absolutely leak-proof. This he decided was impossible. Later he constructed an elaborate, expensive instrument having a system of levers to which the pistons of two syringes are attached so that they open and close the stop-cock when the syringes are filled and emptied. In the past year Koster[24] reported a new apparatus using the ball valve principle, in which he claimed rapid and secure closure of the valves to be effected by the presence of a spring behind each valve. Excessive defibrination of blood as it rushes through these springs, with the possible production of emboli, and the possibility of the presence of a weak or broken spring unknown to the operator render this apparatus undependable.

From a careful survey of the literature, it is evident that there is no transfusion instrument which is entirely satisfactory. The ideal apparatus should combine the simplicity of the modified blood technic with the advantages of the unmodified blood method. In so doing it must meet the following requirements: eliminate all foreign material, reduce to a minimum the injury to the blood, allow no fibrni to form, be suitable to use with patients having any communicable disease with unquestioned protection to the donor, be able to perform a rapid or prolonged transfusion (5 min. to 60 min.), be operated by one man unassisted, be simple in construction, be easily cleaned and steril-

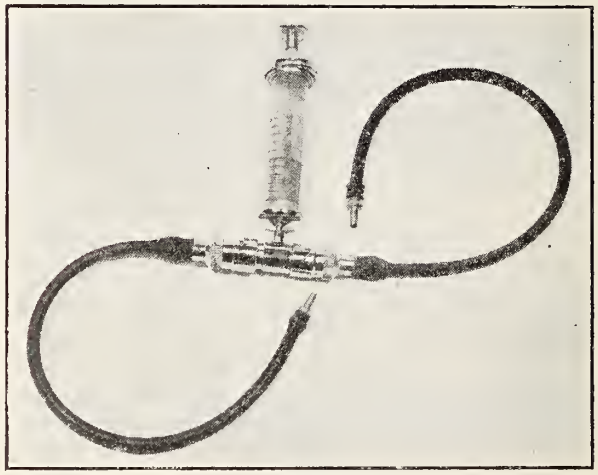

FIG. 1
Showing Apparatus Assembled Ready for Transfusion.

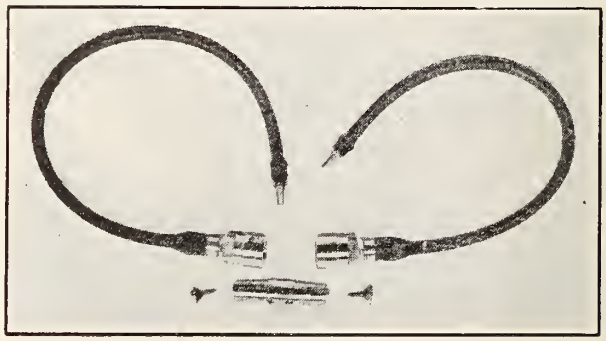

FIG. II.
Showing the Valves and Main Chamber when Sleeves are Detached.

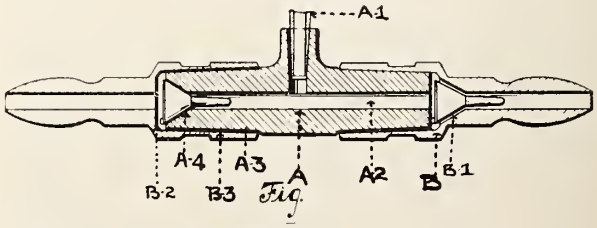

FIG. III.
Longitudinal Section Showing Position of Valves and Construction of Apparatus.

ized by boiling. In an effort to develop such an instrument the following apparatus was designed (See Fig. 1, 2 and 3) and has been found to fulfill these requirements.

A NEW AUTOMATIC INSTRUMENT

The instrument consists of five nickled brass parts. A main chamber fitted with its syringe adapter, two sleeves, and two valves, all turned out on a lathe set to measurements. The main chamber "a" is fitted with an adapter "a-I" connecting the cylindrical tunnel "a-II" (which runs through the chamber and sleeves) with the syringe. The ends of this chamber are tapered "a-III", and ground so that air-tight contact is made with the sleeves "b". The recipient's end is finished with a valve seat "a-IV", while the donor's end is finished flat. The sleeves "b" are identical except for a valve seat within the donor's "b-I" in place of the flat surface in the recipient's "b-II". These sleeves are tapered "b-III" and ground so that they override the ends of the main chamber and are made tight by simply twisting them on it, as one adjusts an adapter into a needle. Each of the two conical-shaped valves "c" has a flat head fitted with a peg "c-I" to regulate the distance the valves unseat and a projection at the apex "c-II" to guide the valve into position when suction is made or when the reverse stream of fluid strikes the center of the flat head. A 5 cc. record syringe is used as a pump and any type of needle provided with a stylet complete the equipment. The formation of fibrin around the valves is eliminated in this instrument by reducing the agitation of the blood stream to a minimum, and by excluding all dead space around the valves by constructing the diameter of the flat head on the valve approximately five times greater than the diameter of the bore in the tunnel of the sleeves and main chamber; and by constructing the peg on the valve head .75 cm. in length and thus assuring this space to be constant and equal to the distance that the valve itself unseats. Suction or a reversed stream of blood, striking the flat head of the valve in the center, has no difficulty in rapidly carrying the valve this distance and instant closure is always effected.

TECHNIQUE

The technic required by this apparatus is so simple that it can be carried out by one person unassisted. After the donor and recipient have been placed in position, tourniquets are put on the arms and iodin applied. After putting on his gloves, the operator places the sterile drapes. The needle with its stylet is inserted into the recipient's vein, and the tourniquet removed with a sterile clamp which is discarded. The donor's needle is likewise inserted with the stylet in place. To exclude all air, salt solution is now drawn up into the syringe, the donor's stylet removed, and connection made with the donor's adapter on the tubing. The pressure in the donor's vein forces blood through the apparatus, expelling the salt solution, and as this is accomplished, the recipient's adapter is inserted into the needle after the stylet has been removed. The apparatus and syringe are now held in one hand by the operator, while with the other he works the plunger back and forth.

EXPERIMENTAL PROCEDURES

With any type of automatic apparatus, proof that the donor is fully protected against infection from the patient is of paramount importance. The following experiments were made to determine whether the instrument herein described furnished this protection.

Experiment 1.—In transferring a clear liquid into a colored solution by this instrument, it was found to be impossible to aspirate the colored solution into the syringe even after clamping off the clear side, or to find any traces of color in the clear solution. The result was constant whether the syringe was pumped rapidly or slowly. This procedure was also carried out against pressure by a rubber tube with a dye solution, closing it at both ends, and applying a Tycos syphigmomonometer around it. Each injection of clear fluid raised the pressure in the tube but no trace of color was found either in the syringe or the clear fluid even after the pressure was raised to 140 mm.

Experiment 2.—It may well be argued that the above is not a real test of actual working conditions during a transfusion as a fluid other than blood is used and the ability of the eye to detect a minute quantity of the dye might be questioned. These objections were met in a series of experiments in which blood was transferred into a tube containing a solution of B coli under varying degrees of negative and positive pressure with the recipient's tube eliminated by connecting up this side of the instrument directly to the needle of the infected solution. Thus the valve on the recipient's side was exactly 10 cm. from the infected point of the needle. 500 c.c. of citrated sheep's blood, to which 25 grs. of calcium lactate were added, were transferred into the infected tube and when finished, cultures were taken of the blood, donor's valve, recipient's valve,

TABLE I.

Blood Spec. No. 1	Pressure in Tube	Amount Transfer'd	Time Used	Clotting Time	Culture of Blood	Culture D's Valve	Culture R's Valve	Culture of Fluid in Tube
A	5 cm	500 cc	3½m	4½m	Neg. for B Coli	Neg. for B Coli	Neg. for B Coli	Profuse Growth B Coli
B	6 cm	500 cc	4m	4m	"	"	"	"
C	9 cm	500 cc	4½m	4m	"	"	"	"
D	12 cm	500 cc	5m	5½m	"	"	"	"
E	15 cm	500 cc	5m	4½m	"	"	"	"
F	25 cm	500 cc	5m	5m	"	"	"	"

Showing that the valves remained uninfected when blood is transfused into B coli solution under pressure.

TABLE II.

Blood Spec. No. 2	Pressure in Tube	Amount Transfer'd	Time Used	Clotting Time	Culture of Blood	Culture D's Valve	Culture R's Valve	Culture of Fluid in Tube
A	3 cm	500 cc	4½m	4m	Neg. for B Coli	Neg. for B Coli	Neg. for B Coli	Profuse Growth B Coli
B	6 cm	500 cc	4m	5m	"	"	"	"
C	9 cm	500 cc	3½m	4m	"	"	"	"
D	12 cm	500 cc	4½m	5½m	"	"	"	"
E	15 cm	500 cc	4m	5m	"	"	"	"
F	25 cm	500 cc	4½m	5½m	"	"	"	"

Showing that the valves remained uninfected when blood is transfused into B coli solution under negative pressure.

and the infected fluid within the tube. This procedure was carried out under different degrees of negative and positive pressure by completely filling the tube, clamping off at both ends, placing the distal end in a beaker of water, unclamping and raising and lowring this vessel 3, 6, 9, 12, 15, and 25 cm. above and below the level of the tube at the point of injection. The results of these experiments (see Tables I and II) show that clotting within the instrument, stickiness of the valves, formation of fibrin, reversal of flow, or any dangerous eddy-current within the recipient's tube does not occur, as in none of them was either of the valves infected with the organisms in the infected solution.

Experiment 3.—A further and, perhaps, more conclusive test was given the instrument when, following ten clinical transfusions (500 c.c. or more), effort was made to show that the valves were still properly functioning. As soon as the desired amount of blood had been transfused the doner's tube was placed into a solution of sterile glucose, the recipient's tube into a solution infected with B coli and 250 c.c. of the sterile glucose transferred into the infected solution. Both valves and both solutions were then cultured and in none of these tests was either of the valves or the glucose solution contaminated.

CLINICAL USE

Sixty clinical transfusions have been done to date demonstrating the simplicity and dependability of this instrument. Two of the patients had strongly positive Wassermann reactions in the blood and eleven had septicemia with positive blood cultures. The Wassermann reactions on the two donors is negative after three months and none of those used with the septicemia patients exhibited any signs or symptoms of being infected by the procedure. No donor objected to the "direct procedure" and while one fainted, it was at the close of the transfusion after 550 c.c. had been given. The amounts of blood transfused varied from 160 c.c. (18 mo. baby) to 800 c.c. with an average of 592 c.c. The minimal time was 2 min. 55 sec. for 500 c.c. and the maximum time was 45 min. for 550 c.c.

SUMMARY

A new automatic instrument for the transfusion of unmodified blood is herein described. The technic required with this instrument compares favorably with the simplest indirect method. Clinical use and experimental tests have proved its practicability and offer conclusive evidence that the donor is insured against becoming infected from the patient's blood stream.

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A SEROLOGICAL AND CLINICAL SURVEY OF THE KAHN PRECIPITATION TEST*

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Favorable results of early experiments with the Kahn precipitation test in this laboratory and successful reports from other laboratories led us to undertake a more extensive investigation of this test.

The technic of the Kahn precipitation test as now performed has some important advantages over the earlier methods. (1) It is quantitative in a relative degree, consisting of three different serum-antigen proportions. (2) The elimination of the necessity for incubation shortens the time necessary for the performance of the test. (3) The test is now sufficiently standardized to assure uniformity of results in the hands of different workers.

The aim of this study was to determine the value of the Kahn precipitation test as compared with the Wassermann reaction and also its clinical value as an aid to a physician in making a diagnosis or deciding on methods of treatment.

*From the City Department of Health Laboratories.

PLAN OF INVESTIGATION AND RESULTS

This report is based on the study of over 5,000 cases. The general plan of the investigation was as follows:

Sera from the Health Department Venereal Clinic, Pre-Natal Clinics and charitable institutions for which the city furnishes laboratory services gave ample material for the work. This provided cases that were diagnostic in character, others that were under treatment, and some from pregnant women.

All examinations were made parallel with the Wassermann test. The majority of them were made without knowledge of, or reference to results obtained with the other test.

The Wassermann test was carried out with two antigens, one cholesterin free and the other containing 0.2 per cent cholesterin. The fixation period was four hours at 10°C

The Kahn precipitation test was run according to the standard procedure described by Kahn[1]. Each test was carried out with three different serum antigen proportions—3:1, 6:1, and 12:1 using the following quantities:

Tube	1	2	3
Antigen dilution cc.	0.05	0.025	0.0125
Serum cc.	0.15	0.15	0.15

A shaking machine was used for mixing, the tubes being shaken for three minutes.

A fifteen minute incubation at 37.5°C. enabled an easier reading of results. The final reading was the average of the readings on the three tubes.

An average reading of two plus or more has been considered positive. Anything less than two plus has been considered doubtful and the tubes showing no precipitation whatsoever have been called negative. The following table shows the results obtained:

TABLE I.

		Wass. Pos.	Wass. Doubtful	Wass. Negative
K.P.T. Positive	1704	1558	55	91
K.P.T. Doubtful	42	67	191	162
K.P.T. Negative	3450	38	76	3336

It will be seen from Table I that of 5,574 sera there was a complete check in 5,085 cases or 91.1 per cent, a relative check in 360 cases or 6.5 per cent and no check in 129 or 2.4 per cent of the cases.

It is further to be seen from the figures that of the results which did not check the Kahn precipitation test gave a slightly larger number of positives. There were 91 cases in which the Kahn precipitation test was positive and the Wassermann negative against 38 in which the Wassermann reactions were positive and the Kahn precipitation test negative.

The study of such discrepancies should throw some light on the specificity of the Kahn precipitation test. Case histories were looked up on these patients and it was considered of interest to tabulate some of the results. Most all fo them occurred on treated syphilis. The findings with 93 cases are given in Table II.

TABLE II.

Pos. Wass. and Neg. K. P. T.	
14—Pos. K.P.T. and Neg. Wass.	22
Pos. Wass. and Doubtful K.P.T.	
9—Pos. K.P.T. and Doubt. Was.	12
Doubt. Wass. and Negative K.P.T.	
11—Doubt. K.P.T.	25

In 63 per cent of the cases the Kahn precipitation test was stronger and in 37 per cent the Wassermann reaction exceeded the Kahn precipitation test.

Of five that were charted in the case histories as "Observation Syphilis".

The first was a prostitute, L. M., who had at repeated arrests given four negative Wassermann reports and two reports that were 4 plus with cholesterinized and negative with alcoholic antigen. The Kahn precipitation test was negative.

The second case, G. L., had a history of three small sores in sulcus near frenum. The Wassermann was negative and Kahn precipitation test 2 plus. This patient was referred to a private physician for treatment.

The third was M. H., a prostitute, white, aged 28, married, who had had one child and two miscarriages. Her Wassermann report was one plus and K. P. T. negative. She was given potassium iodide as provocative, but has not returned to the clinic.

The fourth, J. B., black, aged 38 and married, has had two children, both dead, and one miscarriage. In two examinations she gave negative Wassermann and a 3 plus Kahn precipitation test. Subsequently she gave one 2 plus Wassermann test.

The history of the fifth case was not obtainable.

Among the discrepancies there were 19 that were not diagnosed syphilitic. Of these there were 4 men on whom the Wassermann test was negative and the Kahn precipitation test one plus positive and two men on whom the Wassermann was doubtful positive and the Kahn precipitation test negative. Among 13 women there were 10 prostitutes, 4 of whom had positive Kahn precipitation test and negative Wassermann reports. Two had suspicious histories. Two more had doubtful Wassermann reactions and positive Kahn precipitation test. Three had negative Wassermann reactions and doubtful Kahn precipitation test and one had a doubtful Wassermann reaction and positive Kahn precipitation test. The other three non-prostitutes were: (1) L. J., black, married, aged 30, whose husband is a Venereal Clinic patient with a 4 plus Wassermann. She has given two negative Wassermanns and her Kahn precipitation test reaction is 2 plus. (2) B. G., black, married, aged 20, no children, 1 miscarriage has given a negative Wassermann and 4 plus Kahn precipitation test. No further information is known to date. (3) R. P., white, married, aged 24, has given a negative Wassermann and 2 plus Kahn precipitation test. No other history available.

Discrepancies occurred in four cases of suspicious primary lesions.

(1) L. S., who upon admittance to the clinic had a primary sore gave a negative dark field examination, had at the same time a 4 plus Wassermann reaction and a 2 plus Kahn precipitation test.

(2) Another, J. A., had upon admittance (11-12-24) a sore on the foreskin of six days' duration. Two dark field examinations were negative. Serum reactions were as follows:

	Wassermann	Kahn
11-12-24	Negative	+
11-25-24	Negative	++
12-15-24	Negative	Not run

(3) A. P. had on 11-28-24 a negative dark field and negative Wassermann but Kahn precipitation test was 4 plus. He reported again three days later at which time the sore was healed. We have been unable to make further examinations of this patient.

(4) J. N. had on 11-12-24 a large ulcer on the foreskin of seven days' duration, also left inguinal adenitis. His dark field examination was positive, Wassermann negative and Kahn precipitation test 2 plus.

Among examinations of pregnant women there were 22 discrepancies whose clinical histories were investigated. Of these there were 17 diagnosed syphilis. There were 5 which gave positive Wassermann (none 4 plus however) and negative Kahn precipitation test, six which gave positive Wassermann and doubtful Kahn precipitation test, and six which gave negative and positive Kahn precipitation test.

Of the remainder not diagnosed, syphilitic there is the case of:

L. W., colored, 25, who has had three children who are now living and well. In this her fourth pregnancy, two examinations gave a negative Wassermann and a strongly positive Kahn precipitation test. Provocative potassium iodide failed to bring up the Wassermann reading.

A second, J. H., colored, aged 29, has had one still-birth. She gave, when she entered the prenatal clinic for her second pregnancy (28 weeks) a 1 plus Wassermann and 4 plus Kahn precipitation test. She has been delivered of an eight months child whose cord Wassermann was negative. Baby is normal.

A third, G. C., colored, aged 22, gave, during her fourth pregnancy, two negative Wassermanns, one 3 plus Kahn precipitation test and one 1 plus Kahn precipitation test. She has had two normal children followed by one two months abortion. She was

delivered at term of a normal child with a negative cord Wassermann.

A fourth, C. E., gave a doubtful Wassermann and a negative Kahn precipitation test at the 32nd week of her 5th pregnancy. She had a history of four normal deliveries. Provocative potassium iodide was given and both tests were negative.

It might also be added that among the thousands of Wassermann tests run in the Health Department Laboratory, during the time of this work, there were 160 anticomplementary reactions. On these the Kahn precipitation test resulted in 143 positive, 4 doubtful and 13 negative reactions. Where enough serum was available, a titrated Wassermann test was done with increasing amounts of complement, one series with antigen and one without. In all such cases the result agreed with the Kahn method.

CONCLUSIONS

The Kahn precipitation test possesses several advantageous features which should prove an aid in the correct serum diagnosis of syphilis.

(1) The use of three different proportions of serum and antigen renders the test quantitative in character and also each tube serves as a check on the other two, thus increasing the reliability of the final results.

(2) The rapidity with which a complete test may be executed makes it particularly valuable in such cases in which an early diagnosis is of immediate importance, as for example, in cases for blood transfusion or in the collection of convalescent scarlet fever serum.

(3) The test eleminates the use of such variable factors as guinea pig complement and sheep cells and is in this respect less subject to error than the Wassermann test.

(4) The test, according to our findings, gives evidence of being specific for syphilis and appears to be slightly more sensitive than the Wassermann test.

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COMPARATIVE STUDY OF 100 SUB-TOTAL THYROIDECTOMIES FROM A SINGLE GOITRE ZONE

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This report is made, full well knowing, that many other larger groups have been tabulated, but I wish to add this number, as they came to me practically from a single goitre area and present a few characteristics in type that add to our knowledge in this phase of medicine and surgery. They are chosen from the last five year-series of patients, all coming from Houghton County of Michigan up to October 1st, 1924, from more than 150 thyroidectomies that I have done and had the personal privilege of studying for various years, before and after operative attack.

There have been no deaths following thyroidectomies in my hands although many of the hyperthyroid cases ran desperate courses before and after operative procedure. They demonstrate that our surgical problem here is greatly a problem of adenomata and the symptoms and degenerations that accompany them. Furthermore, we can say that the dangers that befell hyperthyroidism as to degenerations of the myocardium, nervous system, liver, etc., and the acute or subacute, or chronic toxemia lie entirely in the factor of time, with the toxic parenchymatous type more violent than the toxic adenoma, which is quite insidious. Again, both types appear far more frequently between the ages of 20 to 40 years although the menopause increases the danger to the female on account of added burden on the pathologic thyroid to maintain a metabolic balance when the internal secretion of the ovaries cease, as far as the corpus lutii are concerned[1].

The study of the hyperthyroidism as it appears in the pure adenomatous type strike one with the marked difference in symptom complex, which is born out by Plumer[7], Charles Mayo[7], Crile, Elliot, Terry and others. The reaction to iodine as given for preoperative preparation should be recognized[10]. I have for years felt that exophthalmic goitre was a different complex from that of the hyperthyroidism of adenoma. In 7 per cent of my cases, as the chart shows, there was an association of exophthalmos with adenomata, but in these cases there was also parenchymatous hyperplasia that was due to pressure, or irritation with direct or indirect chemistry. It is here the surgeon must recognize the micro-pathologic diagnosis and make a removal, leaving behind only the small wedge pieces about the recr. l. nerves and the parathyroids, because it takes only one adenoma or only a small over-abundance of faulty parenchyma to produce a recurrence or a non-cessation of symptoms. Then we have our deaths, post-operatively, occasionally, from a recurrent toxemia on weakened degenerative vital organs—heart, liver, kidney and nervous system.

TABLE 1—100 SUBTOTAL THYROIDECTOMIES FROM 1918 TO 1924

(Operation—Mean Subtotal Resection, Leaving Wedge Pieces on either side of Trachea. Size, L—large; M—Moderate; and S—Small.)

Sex	Age	Mar. or Single	Duration in Yrs.	Size	Pressure	Tremor	Exophthalmos	Tachycardia	Operation: Rt. Lobe	Lt. Lobe	Isthmus	Colloid	Adenomata	Hyper-thyroid	Perenchymatous	Voice—Post. Op.
1—S. W. .....F	20	S	2	M		+	+	+	+		+			+	+	OK
2—C. R. .....M	27	S	1	M		+	++	+	+	1-3	+			++	+	OK
3—Mrs. A. T. ....F	28	M	4-6	S	+	+	++	+	+		+			+	+	OK
4—W. E. .....M	20	S	2	L	+	+	+	+	+	1-3	+			++	+	OK
5—Mrs. A. L. ....F	31	M	10	L	+	+		+	+	+	+	+	++	+		OK
6—W. P. .....M	27	S	15 2	L	+	+		+	+	+	+		++	+		OK
7—P. T. .....M	47	M	1-6	M		+	+	+	+	1-2	+			++	+	OK
8—Mrs. L. D ....F	33	M	1-3	S	+	+	+	+	+		+			+	+	OK
9—Mrs. M. G. ..F	25	M	7-12	L	+	+		+	+	1-3	+	+	+	+		OK
10—Mrs. J. R. ....F	24	M	15+	L	+				+	1-3	+	++	++			OK
11—C. B. .....M	30	S	7 1-2	L	+	+	+	+	+		+		+	+	+	OK
12—G. H. .....M	29	S	2	M	+	+		+	+	1-3	+	+	+	+		OK
13—Mrs. M. H. ..F	29	M	5	L	+	+	+	+	+	1-3	+		++	+	+	OK
14—Mrs. H. W. ..F	27	M	4	L	+	+	+	+	+	1-3	+		++	+	+	OK
15—Mrs. L. B. ....F	29	M	15+	VL	+				+	+	+		++			OK
16—Mrs. J. M. .F	24	M	1	L	+	+		+	+		+		++	? +		OK
17—V. V. .....F	15	S	2	M	+	+	+	+	+		+			+	+	OK
18—Mrs. J. E. ....F	60	M	44	VL	+				+	+	+	++	++			OK
19—H. T. .....M	31	M	8	L	+				+	1-4	+		++			OK
20—Mrs. R. M. ..F	27	M	2	L	+	+		+	+		+		++	+		OK
21—Mrs. R. J. ....F	39	M	4	L	+				+		+	+	++			OK
22—Mrs. C. P. ....F	29	M	14	L	+	+			+		+	+	+			OK
23—D. S. .....F	16	S	10	L	+				+	+	+	+	++			OK
24—W. S. P. .....M	23	S	4	L	+				+	1-2 +	+		+			OK
25—Mrs. D. P. ....F	34	M	10	L	+			+	+		+		+	+		OK
26—Mrs. M. G. ..F	37	M	15	L	+						+		++			OK
27—C. H. .....F	22	S	4	M	+				+			+	+			OK
28—K. C. .....F	16	S	1	L	+	+	+	+	+	1-2	+			++	++	OK
29—M. D. .....F	25	S	1	M	+	+		+	+		+		+	+		OK
30—W. A. W. ....M	24	S	4	M	+	+		+					+	+		OK
31—Mrs. M. B. ..F	35	M	2	M	+	+		+	+	+	+		++	+		OK
32—M. R. .....F	14	S	5	M	+	+		+	+	+	+		++	+		OK
33—W. T. .....M	21	S	5	L	+	+		+	+	+	+		++	+		OK
34—Mrs. E. B. ....F	34	M	10	VL	+				+	+	+	++	++			OK
35—Mrs. C. K. ..F	54	M	9	VL	+	+		+	+	+	+		++	+		OK
36—Mrs. H. N.....F	34	M	3 1-2	M	+	+		+	+		+		++	+		OK
37—A. M. .....M	48	M	3 15	M	+	+		+	+		+		+	+		OK
38—W. J. B. ....M	35	S	10	M	+	+			+		+		+	+		OK
39—Mrs. J. M. ....F	58	M	8	VL	+	+		+	+	1-2	+		++	+		OK
40—Mrs. M. Y. ..F	26	M	1	M	+	+				+	+		+			OK
41—Mrs. J. D. ....F	32	M	2 20	VL	+	+	+	+	+	1-4	+		++	+		OK
42—Mrs. C. R. ..F	34	M	20+	VL	+				+	1-4	+		++			OK
43—E. M. .....M	8	S	2	L	++				+				+			OK
44—Mrs. P. R. ..F	39	M	20	VL	+				+	+	+		++			OK
45—Mrs. J. G. ..F	39	M	30	VL	+				+	5-6	+		++			OK
46—Mrs. E. B. ..F	26	M	5		+	+	+	+	+	2-3	+			+	+	OK
47—M. K. .....F	32	S	2 15+	L	+	+		+		+	+		+	+		OK
48—Mrs. J. R. ....F	34	M	2 15+	L	+	+		+	+		+		++	+		OK
49—Mrs. B. K. ....F	52	M	30	VVL	+				+	1-2	+	++	++			OK
50—Mrs. C. P. ....F	52	M	30+	M	+				+	1-2	+		+			OK
51—Mrs. G. C. ..F	27	M	2	M	+	+		+	+		+	+	+			OK
52—J. D. .....F	16	S	5	M	+				5-6	5-6 +	+		++			OK
53—Mrs. M. .....F	40	M	1	L	+	+		+	+	+	+		+	+		OK
54—Mrs. B. .....F	33	M	5	M	+	+		+	+	+	+		+	+		OK
55—J. P. .....F	39	S	1-2	M	+	+	+	+	1-3	+	+			+	+	OK
56—M. B. .....M	20	S	10	VVL	+++				+	+	2-3	++	++			OK
57—Mrs. C. C. ..F	57	M	2	S	+	+		+	+	1-2	+		+	+		OK
58—A. H. .....F	26	S	5	M	+	+		+	+	1-2	+		+	+		OK
59—Mrs. E. C. ..F	51	M	20	M	+				+		+		+			OK
60—Mrs. C. K. ..F	34	M	2 15	L	+	+	+	+	+	1-3	+		++	+		OK
61—Mrs. F. H. ..F	24	M	1 15	L	+	+		+		+	+		+	+		OK
62—L. P. .....F	18	S	1 18	L	+	+		+	+	1-3	+		+	+		OK
63—Mrs. C. M. ..F	34	M	3	S	+	+		+	+	1-3	+		+	+		OK
64—C. W. .....F	25	S	1	S		+	+	+	+	1-2	+		+	+	+	OK
65—K. W. .....F	19	S	1	ML	+	+		+	+	1-3	+		+	+		OK
66—J. R. .....M	47	M	20+	VVL	+				+	+	+	++	++			OK
67—Mrs. J. Z. ....F	53	M	2 20	L	+	+	+	+	+	2-3	+		++	+		OK
68—Mrs. S. W. ..F	53	M	10+	ML	+				+	+	+		++			OK
69—Mrs. J. J. ....F	33	M	10+	M	+				+	1-2	+	+	+			OK
70—Mrs. F. W. ..F	54	M	10+	M	+	+			+		+	+	+			OK
71—Mrs. H. M. ..F	53	M	20+	L	+				+	+	+		+++			OK
72—Mrs. P. V. ....F	46	M	2+	S	+	+	+	+	+	1-2	+			+	+	OK
73—L. F. .....F	19	M	1 11+	VL	+	+		+	+	+	+	+	+++	+		OK
74—M. B. V. .....F	61	S	2 10+	M	+	+		+	+	+	+		+	+		OK

TABLE 1—(Continued)

	Sex	Age	Mar. or Single	Duration in Yrs.	Size	Pressure	Tremor	Exophthalmos	Tachycardia	Operation: Rt. Lobe	Operation: Lt. Lobe	Operation: Isthmus	Colloid	Adenomata	Hyper-thyroid	Perenchymatous	Voice—Post. Op.
75—Mrs. M. H.	F	37	M	2 20+	L	+	+		+	+		+		++	+		OK
76—Mrs. E. B.	F	50	M	2 10+	M	+	+		+	1-2	+	+		+	+		OK
77—M. H.	F	40	S	3 30	M	+	+		+	+	1-2	+		+	+		OK
78—Mrs. B. H.	F	38	M	3 15	VL	+	+		+	+	+	+	+	++	+		OK
79—Mrs. I. C.	F	37	M	11+	L	+				+	1-2	+		++			OK
80—Mrs. N. R.	F	30	M	2	M	+	+		+	+		+	+	+	+		OK
81—Mrs. M. W.	F	43	M	4	S	+	+		+	+	+	+		+	+		OK
82—V. S.	F	26	S	3 1-2	L	+	+	+	++	+	+	+		++	++	++	OK
83—H. M. Jr.	M	27	S	12	L	+					+	+		++			OK
84—S. T.	M	27	S	8	L	+					+	+		++			OK
85—Mrs. F. B.	F	29	M	20	VL	+				+	+	+		++			OK
86—Mrs. I. O.	F	45	M	15	M	+					+	+		+			OK
87—Mrs. A. H.	F	41	M	2	M	+	+		+	+	+	+		+	+		OK
88—Miss M. D.	F	35	S	2	M	+	+		+	+	+	+		+	+		OK
89—Mrs. J. W.	F	54	M	1-2	L	+	+	+	+	+	+	+		+	+	+	OK
90—F. D.	M	43	S	8	L	+					+	+		++			OK
91—A. S.	M	43	M	2+	VL	+				+	+	+		+++			OK
92—H. D.	F	40	S	1+	S	+	+		+	+	+	+		+	+		OK
93—E. H.	M	23	S	1 10	VL	+	+		+	+	+	+		++	+		OK
94—Mrs. E. B.	F	31	M	1-4	M	+	+	+	+	+	+	+		+	+	+	OK
95—E. B.	F	19	S	1 19	M	+	+		+	+	+	+		+	+		OK
96—C. L. R.	M	56	M	1-4	M	+	+		+	+	+	+		+	+		OK
97—N. O.	F	30	S	1	L	+	+		+	+	+	+		+	+		OK
98—Mrs. W. T.	F	34	M	20	VL	+				+	+	+		++			OK
99—L. R.	M	19	S	10+	VVL	+				+	+	+		+++			OK
100—Mrs. N.	F	36	M	2	L	+	+		+	+	+	+		++	+		OK

PATHOLOGY OF THYROIDS WITH SURGICAL ASPECTS

There were 78 females and 22 males. Seventeen colloid goitres were operated, 2 amongst the males, and all of these contained adenomatous masses, non-toxic. Eighty-nine per cent contained adenomata with 49 multiple and 40 single, 22 of the former and 28 of the latter were toxic. (Table 2,3) The sudden enlargement or

TABLE 2—SURGICAL GOITERS, BY DECADES, OPERATION

FEMALE

Years	11-20	21-30	31-40	41-50	51-60	60+
Colloid	2	5	5	..	3	..
Adenomata	7	22	26	4	11	1
Hyperthyroidsim	8	14	20	3	6	1
Hyperthyr-Perenchym	3	5	3	..	3	..
Hyperthyr. Aden.	5	12	18	3	5	1

MALE

Years	1-10	11-20	21-30	31-40	41-50	51-60
Colloid	..	1	..	..	1	..
Adenomata	1	2	8	2	4	1
Hyperthyroidism	..	1	7	..	2	1
Hyperthyr.Perenchym	..	1	2	..	1	..
Hyperthyr. Aden.	..	..	6	..	1	1

TABLE 3—ADENOMATA (89).

Single—40 (44.9 Per Cent)				Multiple—49 (55.1 Per Cent)			
Non-Toxic—12		Toxic—28		Non-Toxic—25		Toxic—24	
F	M	F	M	F	M	F	M
9	3	23	5	17	8	21	3

the enlargement of one adenoma always brings a danger of hyperthyroidism. In my later work, i. e., for the last 2½ years, I was struck with the necessary care needed in searching the remaining thyroid tissue to be positive that no adenomata nor pyradmidal lobes were left behind. Single adenomata are more rare than my percentage shows, and my examination of many thousands of thyroids bear me out in this. Also, I wish to emphasize that in our goitre district where our problem, as stated before, is thyroid adenomata, it is very much more common to examine children of all ages with multiple adenomata than to find a single adenomatous goitre. Cystic goitres, pure and simple, was not common to my work. No doubt, cystic goitres will be found in older goitre areas more commonly than amongst newly created areas. These new goitre areas are populated by immigration from European countries. Ours is practically only 60 years old. The cysts are usually the result of hemorrhage within an adenoma or colloid mass, followed by cystic degeneration. This I will take up in another communication.

I can not emphasize too strongly that the upper mediastinum frequently harbors thyroid tissue necessitating secondary operations for the removal of substernal adenomatous masses. I outlined this feature in a previous article entitled "Intrathoracic Goitre" published in April, 1924 (6). Case No. 5 of that series was operated for recurrent goitre and had an adenoma 2½ inches in diameter situated well beneath the sternum. Of this group 60% were deep,

and 40% were substernal. It is not only the mechanical symptoms that concern us, but hyperplasia which so insidiously breaks down the myocardium, liver and nervous system.

The pathology in my cases bear out the fact that hyperplasia is the basic principle of the difference between a toxic and non-toxic goitre, whether adenomatous or parenchymatous, and whether they have a marked increased metabolic rate or not. A quiescent hyperplastic adenomatous goitre may have a doubtful increased metabolic rate at the examination.

The more thyroid examinations I make, and thyroids I operate on, I must caution surgeons always to bear in mind that in doing thyroidectomies they should acquaint themselves with the symptoms and micropathology of this gland so that the gross pathological appearances can be properly evaluated, in order to remove the diseased portions entirely, and leave sufficiently of good thyroid tissue to protect the recr. 1. nerves, parathyroids and to protect against hypothyroidism. We must correlate the microscopic and gross appearances, because during operation our judgment then will give the proper removal and also the proper result afterwards. It is difficult to say whether the remaining portion should be 1/6 or 1/10 of a certain goitre. When we realize that the normal gland is hardly palpable even in thin necks, and has the wonderful potentiality that it has demonstrated, a small amount of healthy parenchyma will be sufficient to maintain a thyroid balance. One sixth of the total gland is considered sufficient to leave, but I find that in my very early work, and must say, also the method followed by others five years ago, that recurrences appeared because we did lobectomies and not thorough enough resections. Therefore, a safe conclusion is that we must bravely remove more. I found my results much better since I carried out removal as stated before, i. e., more thorough resections.

COMBINED GOITERS

We must recognize that a certain individual, especially living in a goitre belt, is subject to multiplicity of hypertrophied thyroid tissue, as I have found that firstly, adenomata were associated with colloid goitres; secondly, adenomata were usually multiple; thirdly, some parenchymatous exophthalmic goitres contained enlarged multiple adenomata; and fourthly, that in old large toxic multiple adenomatous thyroids eventually they had a small degree of exophthalmos. This last, I believe is caused by an hyperplasia of the remaining thyroid tissue due to toxic and mechanical irritation, as we are led to believe that pure toxic adenomata do not cause exophthalmos.

Seventeen were colloid goitres and all of these contained small adenomata. Out of 18 toxic parenchymatous exophthalmic goitres 7 were associated with adenomata. Again 14% of the 49 toxic adenomatous goitres had exophthalmos. But I must add that the degree of exophthalmos was small. All of the eye symptoms were not present. This combination, or associated goitre, accounts for a discrepancy in the percentages. These combined toxic goitres should be ranked as exophthalmic types because just removing the adenomata would mean a recurrence of a severe toxic parenchymatous goitre. These conclusions are drawn from surgical experience of upwards of 150 thyroidectomies, tabulation of examination of about 2,300 persons with 1,300 goitres, and the careful examination of thousands of other goiterous necks in the Great Lakes Goitre Belt.

Only one of this series was malignant and could not be entirely removed surgically. Therefore, we subjected the neck to intense X-ray treatment and it has been held in abeyance without enlargement for 3 years.

DURATION

Table 5 shows clearly by decades the duration of each type. It is interesting to note that toxic parenchymatous goitres come to operation in less time than hyperthyroid adenomata, although the difference is small,

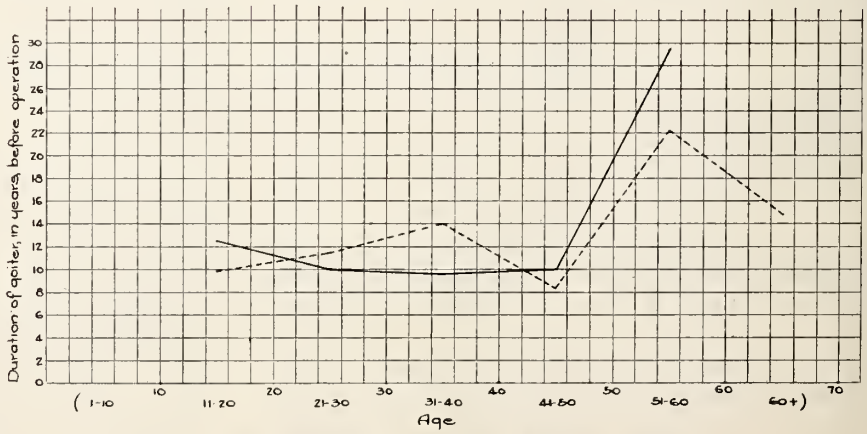

Chart 1 - Duration of goiters, operated on, in years, by decades, in females
Outline dots indicate duration of adenomata.
Solid line indicates duration of colloid goiter.

1.62 years and 2.36 years respectively. The females of the toxic goitres are operated on in about the same stage of the disease. The adenomata remain quiescent on an average of about 12.59 years before the patient notices toxic symptoms, .73 years earlier in the female. The early symptoms are usually nervousness, tachycardia and some loss in weight, and sterngth. (Chart 1 and 2)

The toxic symptoms appear, therefore, 12½ years after the adenomata are recognized by the patient and come to operation within 2.53 years later, slightly longer in the average female.

The fact that non-toxic adenomata come to operation in 11.53 years, and toxic adenomata are quiescent for 12.59 years, suggests, no doubt, that this relationship may mean that a percentage of the former would become toxic if permitted to develop.

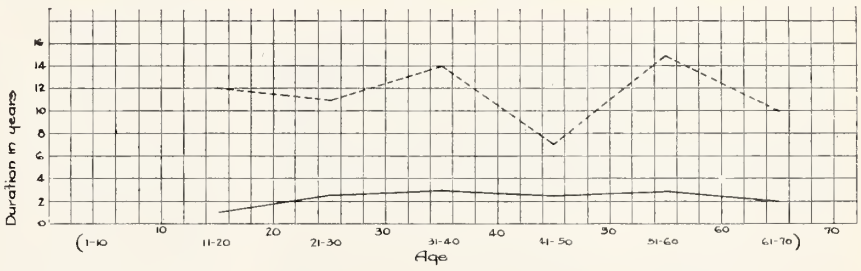

Chart 2 - Hyperthyroid adenomata.
Outline dots indicate duration in years, by decades, before toxic symptoms appeared.
Solid line indicates duration in years, by decades, of toxic symptoms

SYMPTOMS

Ninety-six per cent of these goitres show pressure as one of the symptoms. Two toxic parenchymatous and 2 toxic adenomata did not elicit it. The severity of this mechanical symptom depended upon the location and size of the mass and how much the trachea was compressed. It is marvelous to what twisting and distortion the trachea can be treated and air passage maintained. It can be sabre-like, V-shaped, S-shaped and nearly flattened out. The pressure is tolerated more above the sternum than beneath it. The substernal thyroid and the firm isthmus complain of pressure more than those in the former location. (Table 4).

TABLE 4—PROMINENT SYMPTOMS

	Pressure	Tremor	Exophthalmos	Tachycardia
Toxic Perenchymatous—Female	12	14	14	14
" " Male	2	4	4	4
" " Total	14	18	18	18
Toxic Adenomata—Female	37	44	6	44
" " Male	8	8	1	8
" " Total	45	52	7	52

An hemorrhage in the thyroid may be the cause for sudden alarm, due to severe pressue, as in case No. 86.

Tremor and tachycardia appeared in all the toxic parenchymatous goitres. The exophthalmos was not marked in 6 of the females with exophthalmic goitres, whereas, all the rest, and all the males showed this symptom quite plainly.

Exophthalmos to a small and moderate degree appeared in 7 parenchymatous goitres containing multiple adenomata. The explanation of this phase has been taken up before.

Table 4 gives a tabulated record of the most important symptoms and is self explanatory.

All exophthalmic goitres show a distinct loss in weight and muscular strength.

Careful investigation brings out the fact that many old adenomatous thyroid patients whose goitres have been manifest for 10 to 20 years have a little dysponea, or occasional attacks of tachycardia, with "stopping of the beat", nervousness, irritability, and known attacks of irregulairty. With an elimination of focal infection, teeth and tonsils, or in spite of them, this is insidious brown atrophy. In all the toxic adenomatous goitres operated, a history of this was found, and I have had the opportunity to make this comment to scores of adenomatous patients, following examination, with the discovery of a firm and multiple nodular goitre. Permit me to give a history:

Mrs. J. L.—Is 55 years of age, married, mother of three healthy children. Her last child is 22 years. Came to me with a dysponea, and a pounding, choking sensation in the upper part of the anterior chest and neck. Her family history is negative except that her eldest, a daughter, has had a toxic parenchymatous goitre with thyroidectomy two years ago. She is 5 feet 3 inches tall, and weighed 145 pounds.

She had a negative history as far as contagious and infectious diseases, but last year one tooth was removed for an apical abscess. The rest were X-rayed recently and found negative. The urine was negative. The blood pressure two years ago was 200 systolic, but today with an irregular, unequal heart is 124/80.

Her neck contained a small goitre with a firm right lobe and isthmus, but the left lobe at the lower pole is occupied by an adenoma about two inches in diameter, extending beneath the left end of the sternum. The B.M.R. was only +30. With digitalization for one week, all tthe arythmia disappeared except a regular tachycardia, fine tremor, feeling of weakness and restlessness. But I wish

to state here that this is an insidious toxic goitre, that, if not operated on, and properly, would eventually break down the myocardium, causing incompensation and all the dangers that go with it. Hence, let me sound a warning in the ears of the general practitioner who first sees this type of case.

Thyroidectomy was done with local infiltration and she had an uneventful recovery, with a return to normal heart action and normal muscular strength throughout. The pathology showed multiple toxic adenomata.

My cases demonstrated, as I heard Dr. Crile state at the recent A. M. A. Surgical Section about his results [2], that the metabolic rate ran a corresponding ratio with the severity of the symptoms in toxic goitres. Therefore, we must not use the B.M.R. as

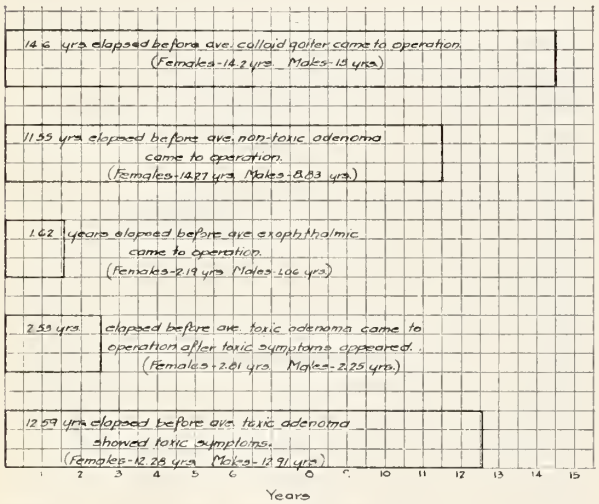

Chart 3 - Comparative time in years that thyroidectomies were performed after appearance of goiter or toxic goiter symptoms.

the only criteron to judge the operability of a toxic goitre. The symptoms as shown by the kidneys, heart and especially the nervous system are to be properly, and judiciously evaluated. A safe B.M.R. with a damaged fibrillating myocardium, nausea and restlessness speaks of a very poor risk. Therefore, the B.M.R. denotes the present stage of hyperthyroidism, but does not signify the degree of degeneration, and the surgical risk is based on surgical tolerance of the vital organs and the degree of toxemia. The former, (vital organs), are judged by their compensation, as of the heart, liver and kidney, while the latter, (toxemia), is judged by the B. M. R. and corresponding nervous and gastro-intestinal symptoms. Nausea and vomiting in the severe cases denote dangerous toxemia.

Dr. Plummer's early rule can well be remembered, "20% of all goitres develop heart disease in 14 years." The above series gives even earlier appearance of heart degeneration.

TREATMENT

As the treatment depends so much on the condition of the patient and the degree of the disease, let me here send up a loud cry to the goitre men that no work in medicine need such a thorough examination as do these patients. Every vital organ should be judged; focal infection should be sought out, i. e., teeth, tonsils, appendix, gall bladder, etc., vocal cords should be examined; B. M. R. taken; and most thorough history investigated. Therefore, a goitre examination should be a most thorough one.

In general, I may say that goitres are medical when they are simple colloid, but any colloid goitre that causes pressure and has remained in the neck 15 years[5] becomes fixed and surgical, especially if the patient is near 30 and adenomatous masses are present[1].

As thyroid adenomata do not respond to medical treatment except in the very young, and iodine treatment sometimes precipitates a dangerous progressive toxemia, I am distinctly of the opinion that they are to be removed surgically at 30 years of age, and before that time if they are toxic. The thyroid adenomatous female at menopause is certainly threatened with toxic adenomata, and no doubt, many nervous "breakdowns" at this time can be traced to this complex. I have had many occasions to diagnose this phase of the disease, and have the patient be relieved by a thyroidectomy.

All toxic goitres, whether parenchymatous or adenomatous, are purely surgical diseases. The only conditions or delays can be tolerated on the grounds of a safe time. Put them to bed. Take their B.M.R., examine the efficiency of their hearts, livers and kidneys, and choose a safe time. If only ligation can be done, do a ligation or a lobectomy, but always with the idea that a complete subtatal resection, as I will outline, would be the final curative chapter. I do believe that more primary thyroidectomies can be done if we observe the pre-operative Lugol treatment, digitalization, and the rest in bed, carefully choosing the up curve for interference[9].

The iodine treatment, I can vouch, has precipitated severe and dangerous toxic symptoms in multiple adenomata, and I wish to state here, that if these young persons are not operated early, the progress of the disease is likely to end in an early malignant toxemia, precluding any surgical attack. Therefore, do not use Lugol's solution pre-operatively in adenomata, except in the combined types.

TABLE 5—DURATION OF GOITERS, OPERATED ON, IN YEARS BY DECADES BEFORE OPERATION, AND ALSO AVERAGES.

	FEMALE								MALE								
YEARS	1-10	11-20	21-30	31-40	41-50	51-60	60+	Ave.	1-10	11-20	21-30	31-40	41-50	51-60	60+	Ave.	Total Ave.
Colloid	..	12.5	10	9.66	10	29.6	....	14.2	..	10	.....	..	20	20	..	15	14.6
Adenomata	..	9.83	11.6	14.05	8.33	22.33	15	14.27	2	10	6.92	9	8.25	20	..	8.83	11.55
Hyperthyroidism	..	2	2.82	2.74	2.5	2.9	2	2.76	..	....	2.22	..	1.63	¼	..	1.96	2.36
Hyperthyroidism Perenchymetous	..	1.66	3.87	0.58	2	.05	....	2.19	..	2	1	..	¼	....	..	1.06	1.62
Hyperthyroidism Adenomata	..	1	2.47	2.98	2.66	2.9	2	2.81	..	....	2.43	..	3	¼	..	2.25	2.53
Hyperthyroid. Aden. Before Toxic Symptoms appeared	..	12.05	11.23	14.11	7.33	15.8	10	12.28	..	....	10.4	..	12	20	..	12.91	12.59

I fully concur with the opinion that Plummer has certainly added much to our preoperative and post-operative treatment in exophthalmic goitres by the use of Lugol's solution. Following this treatment, on the low ebb of the toxemia, a complete subtotal resection can be made, eliminating ligations almost entirely, as stated by Plummer in the last year's experience at the Mayo Clinic.

Only 1% of the above series needed a ligation, which was done one year before at another hospital, and I did the thyroidectomy on an up curve of a recurrent attack of toxemia.

As far as the thyroidectomy is concerned, I have already mentioned that we need leave only a small wedge piece on either side to thoroughly protect the recr. l. nerve and parathyroids, and that piece of healthy thyroid can be smaller in inverse proportion to the age of the individual. One would be very careful to leave healthy tissue to 1/6 in the young adult, while in a 57 year old a smaller wedge can be left. More thorough resection should be done. In my earlier goitre work, lobectomies, not thorough enough removal, lack of exploring the mediastinum, pyramidal lobes, and the remaining thyroid tissue for "kernels" of adenoma, gave our recurrent goitres. Furthermore, when a toxic goitre is toxic after the operation and the patient must remain half-up and down in bed, with tachycardia, etc., we have failed to eradicate all the hyperplastic gland.

I have followed Kocher's low collar incision, and did not sever muscles only when this was essential for rapid and safe removal. Thorough subtotal resection was done, as described, in the last four years of work. Drainage was followed in all the work through the center of the wound for only 24 hours and the skin was closed with a subcutaneous silk-worm gut in two sections, which is taken out in 5 to 6 days, leaving no sutures externally.

Resection of the gland is sub-capsular, commencing on the right side as a rule and carried to the trachea and over, after delivery of the mass or masses, but sometimes the left lobe is taken from the left side, depending on the expediency of the mechanics of the work. In many of the cases the isthmus was attacked first by dividing it in the middle, making for a safer removal and also for less trachael irritation. If one acquaints one's-self with the blood supply and places the forceps accordingly, the hemorrhage can be greatly limited to a minimum. Do as many of the toxic goitre as is possible with novocain ½%, but, in the severer ones, this anesthesia is certainly the safest. As I advocated before; all sub-sternal goitres are more safely dealt with under local infiltration of ½% novocain, adrenalin being added in non-toxic goitres.

Adrenalin chloride should not be added to the novocain in toxic goitres of either type as we will demonstrate the Goetsch's Test, and the patient becomes more restless, nervous, and suffers from practically an increased hyperthyroidism.

RESULTS

We judge our results by:

1. Cosmetic results (adhesions).
2. Recurrence of goitre.
3. Effects on the vocal cords.
4. Any toxic symptoms remaining.
5. Hyperthyroidism.
6. Any deaths and causes.

1. In the above series this method of operation gave the best cosmetic result. In one, an adhesion due to a slight infection made a slight irregularity in the contour of the neck. Early massage of wound after healing decreases these adhesions.

2. There was 10% recurrence in the earlier goitres done before this series was operated, and only less than 5% of this series. I want to add that in a definite goitre section like ours, recurrences would be more common on account of the natural goitre belt cause, and therefore, I caution my patients to take iodized salt or chocolate tablets, or sojourn in a non-goiterous area, as the seashore.

3. Vocal cords should be examined before operation as we occasionally find paralysis of one, that would seem as a mutigation of our result. All of the patients of this series had perfect voices after operation and if the resection is done, as I stated, no voice injury should result. One who had a massive goitre of 20 years or more duration, waited 4 to 6 months before the voice was entirely clear.

4. and 6. As all operated cases recovered, none had to be fed any thyroid tissue, and none needed reoperation,—the fourth and sixth factors are satisfied.

5. Hypothyroidism did not occur in any of this series.

SUMMARY AND CONCLUSIONS

1. The above is based on 150 thyroidectomies, tabulated results of 2,500 examinations of 1,300 goitres, and the examination of thousands of goiterous necks. All of these are from the Great Lakes Goitre Belt of U. P. of Michigan.

2. (a)—Our surgical goitre problem is greatly one of adenomata. (b)—Amongst thyroid persons of such large numbers, we must bear in mind that all fixed goitres may be potentially thyrotoxic, especially the adenomatous type, whether nodular or adenomatotic.

3. (a)—Toxic adenomata have a different symptom complex than parenchymatous exophthalmic goitre. (b)—Lugol's solution should be used in pre-operative preparation and post-operatively in exophthalmic goitres, but is distinctly contraindicated in pure toxic adenomata, except where there is any possibility of a combined Ex-g. In the last, use Lugol's in the pre-operative preparation and post-operatively.

4. In severe hyperthyroidism of toxic multiple adenomata we have sometimes an associated exophthalmos.

5. Goitres are to a marked percentage combined in type. We must recognize the presence of adenomata in apparently colloid goitres, and, that in about 7% of my thyroidectomies, parenchymatous goitres, (exopthalmos to a small degree), were associated with large multiple adenomata. This may be characteristic of our special goitre section. A comparison of observations is entirely desired.

6. As to symptoms, pressure occurs in 96% of all these goitres, more marked in deep or in thoracic types than in the highly placed ones. Tachycardia and tremor are present in all toxic goitres.

The thyroid thrill was present only in 50% of my toxic goitres and then mostly in the well marked ones.

7. Surgeons, during thyroidectomy, should search the thyroid and accessory thyroid areas for pathological thyroid tissue to make certain that all hyperplastic parenchymatous and all adenomatous tissue be removed.

8. More thorough and judicious resections can now be made.

9. Severe toxic and intrathoracic goitres should be operated with local infiltration, as general anesthesia certainly adds to the risk and may mean the over balancing element against recovery.

10. No thyroid deaths occurred in my hands, and 99% had perfect voices immediately after operation.

11. Surgeons, internists and roentgenologists must recognize that thyrotoxic goitres are economically deficiency diseases, and it is the duty of all to bring these patients to proper subtotal thyroidectomy as early in the disease as is possible.

12. X-ray and radium have only supplemental value in the cure, but must not be used to delay radical treatment.

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"THOSE GOOD OLD TIMES," AS SEEN BY A PHYSICIAN

(PART IV)

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SMALLPOX—VARIOLA

Smallpox is an acute contagious disease of unknown cause. It is accompanied by a high fever and aching pains in addition to a very disagreeable skin rash. This latter starts out as red blotches which develop into little abscesses or pustules. These often are so close that they run together and the patient is covered by a foul smelling, pus

leaking, nasty looking crust. The skin becomes swollen, particularly the face so that the pus covered features are distorted grotesquely. It is one of the most disagreeable of diseases. Those who recover have small pits in the skin where the abscesses were and these are permanent and may be disfiguring.

Smallpox is mentioned in the most ancient chronicles of India. Inoculation for it is first mentioned here whence it spread to China about 300 B.C. Special prayers were given for Brahmin priests when performing this operation.

In Egypt Ruffer found mummies who had had small pox 1200 B. C.

The Greeks and Romans at their most noted periods did not have it. It reached there afterwards and only spread slowly through Europe to England, where it was first mentioned in 1593. The Crusaders probably were instrumental in its spread.

In London the first epidemic of record is in 1628 and since then it has been present in London every year with a very few exceptions.

The Spaniards brought it to America with them and it worked havoc with the Indians.

In 1674 Queen Mary of England died of it. In writing of her death Macaulay took occasion to also say:

"That disease, over which science has since achieved a succession of glorious and beneficient victories, was then the most terrible of all the ministers of death. The havoc of the plague had been far more rapid; but plague had visited our shores only once or twice within living memory; and the smallpox was always present, filling the churchyards with corpses, tormenting with constant fears all whom it had not yet stricken, leaving on those whose lives it spared the hidious traces of its power, turning the babe into a changeling at which the mother shuddered, making the eyes and the cheeks of the betrothed maiden objects of horror to the lover."

Probably he overdrew the picture somewhat. In that same year the records show 1,683 people died of smallpox and the deaths from all causes was 24,100 about 1 in 14.

In reviewing the advertisements of this time for wanted persons such as runaway boys, servants, criminals, etc., pock marks are found mentioned in 16 out of 100 such notices. It has been estimated that one in four or five were so marked.

And many a court beauty had her portrait painted by a considerate artist who left out these blemishes.

It is curious that the artists in portraits of themselves show them very often.

People preferred servants who had had small pox as they would be less likely to carry it into the family later. This is shown by the following:

"Wanted, a man between twenty and thirty years of age, to be a footman and under butler in a great family; he must be of the Church of England and have had the smallpox in the natural way. Also a woman, middle-aged, to wait upon a young lady of great fashion and fortune; the woman must be of the Church of England, have had smallpox in the natural way, etc."

In 1746 the first smallpox hospital in the world was built in London that the well-to-do could have a place to send their sick servants.

In addition to getting smallpox in the natural way since early times it has been customary in some places to inoculate people with it. It was felt they would have it anyway and it would be better to have it while young or in good health or when it would least interfere with other things. In addition it did not seem nearly so severe as the naturally acquired disease.

In December, 1713, a Greek physician, by the name of Timoni, wrote to London from Constantinople a description of this practice. He stated it was not done by the Turks, but the Greeks, Circassians and Georgians all inoculated smallpox.

He stated that matter was taken from pustules in mild cases, collecting it in stoppered vials and using it from patient to patient by putting a little of this substance on a few punctures made in the arm or thigh and covering it with a walnut shell bound on.

He stated he had seen no bad results, but had heard rumors of such cases, which upon investigation always proved untrue.

Other people wrote of it soon after and in 1717 Lady Mary Wortley Montague, wife of an English Ambassador, had her son of 5 inoculated by a Greek woman. There was a set of old Greek women who did most of it at the time.

In 1718 she returned to England and was one of the advocates who helped introduce it there.

King George I remitted sentence on six Newgate felons on condition they submit to inoculation, which was done in August,

1721. There were three men and three women.

After this six charity children were inoculated and as they made a go of it, the Princess of Wales had her own children treated the same.

Following this it became very popular for about 30 years. Certain physicians made considerable money doing this operation for it was largely the rich only who could afford it. It required a smallpox patient, an apothecary and a physician at the same time.

In 1721, a ship from the Barbadoes brought smallpox to Boston. There were 10,565 people there at that time and 5,989 had it, many dying.

Inoculation was practiced at that time by one of the physicians and it was ridiculed by his rival who accused him of increasing the mortality list by it.

The use of this method fell into disuse after this.

In 1738, slave ships brought smallpox to Charleston, S. C., where it had not been known for 15 years. Two of the physicians dealing with it in this epidemic revived the method of inoculation and used it to some extent. One of them afterwards went to London and practiced where he revived the use of this measure and it again for a time was popular and lucrative.

It worked fairly well but there were so many seriously ill with it that it again came into disrepute. A less dangerous type of smallpox was sought but not found.

Those physicians who defended it were accused of an unwarranted bias. One writer commented as follows:

"An empiric never hesitates at making positive declarations, and is never at a loss for pretexts to cover failures. Should an infant at the accession of the variolous fever be carried off by convulsion, he denies with effrontery that the smallpox was the cause, and invents another upon the spot. Should the confluent smallpox and death ensue, he soon detects that his instructions were not strictly complied with, but some important error was committed in regimen; or, that the patient was too much or too little exposed to the air. In fine, the fault may be in the parents, in the nurse, or in the inoculated, but is never allowed fairly to fall upon the inoculator."

In the 18th century, it is estimated that 10 per cent of the deaths were due to smallpox.

In nature it varied in severity much as it does now and much controversy was due to lack of understanding of this variation. It was said:

"There were cases a physician could not save and cases which a nurse could not lose."

Inoculation lasted after vaccination was introduced until it was made a felony by Act of Parliament in 1840.

The black plague retired from Europe when people began to use footwear the year around.

Typhus fever ceased to be ever present when cleanliness interfered with the long and intimate association of men and the louse.

Smallpox did not cease with the higher standards of living society adopted, for it was spread by a direct contact which needed no parasitic intermediate that could be tabooed.

However, a way seems provided for all things and this was no exception.

Inoculation protected individuals, but it had no effect on epidemics unless to add to them for it was too serious a thing to ever become general enough for that.

It was observed that those who had had cowpox were not susceptible to inoculation. It was long observed that they, too, usually escaped smallpox spread in the natural way.

Benjamin Jesty and two of his servants had had cowpox and attended smallpox cases without getting this disease. So in 1774 when smallpox appeared in his village he inoculated his wife and two small sons with cowpox from a neighbor's herd.

Nash, in 1781, wrote as follows:

"It is rather remarkable that no writer should have taken notice of the cowpox. I never heard of one having the smallpox who ever had the cowpox. Cowpox certainly prevents a person from having the smallpox. I have now inoculated about 60 persons who have been reported to have had the cowpox, and I believe that at least 40 of them I could not infect with the various virus; the other 20, or nearly that number, I think it very reasonable to presume (as they were no judges), had not the real cowpox. It is not my own opinion only, but that of several other medical gentlemen, that convinces me the cowpox is a prophylactic for the smallpox. I have not been able to discover that the human species get it from the cows in any other manner than by contact with the parts immediately infected, such as in milking; neither do I apprehend that one of the human species can communicate it to another but by the same means, as I have known some of the inhabitants of a house where it was escaped, but none of those who lay in the same bed with the diseased person. When those who have had the cowpox are inoculated, the arms inflame, but never, or at least seldom, form an abscess, but some hard tumor in the muscular flesh. On cows, the cowpox usually appears at first in round pustules, afterwards in ulcers upon the teats and udders, but principally upon the teats. They do not appear to have any sickness before it comes out. Their teats are so far injured by the inflammation it

produces, that people are frequently obliged to open the tubes through which the milk passes with a knitting needle or some such instrument. One cow having it will communicate it to a whole dairy. Cows have the disease but once. I have not been able to determine whether a person who has had the smallpox can receive this disease. In those who have had the cowpox, the arm on inoculation for smallpox is inflamed to a greater extent than in those who have not had it; but then there is little or no matter in the middle, where the puncture was made, nor does it fill in as those who have not had this disease, but soon heals and dries."

Jenner, a country doctor, found that inoculation with smallpox failed in those having had cowpox so he tried carefully the use of cowpox material. On May 14, 1796, he inoculated James Phipps, a boy of 8, with cowpox. Six weeks later he inoculated him with smallpox with failure to produce illness.

He was enthusiastic and practiced the inoculation of cowpox as a prevention of smallpox. He published his results in 1798 and vaccination soon was widely used. At all times it has had many opponents, but smallpox has disappeared just in proportion as vaccination is used. It fell from a place where it caused 10 per cent of deaths to about the lowest place in the mortality list.

In Germany, where periodic vaccination was compulsory under its compelling monarchy, smallpox totally disappeared only to return in a small degree since democratic weakness has replaced its former efficient government.

And today smallpox is kept under by vaccination to the degree it causes no alarm.

Whenever it finds unprotected localities, sooner or later it enters and the alarm once given the people rush to vaccination and the loathsome disease with its disfigurement and death is again whipped out.

There are those who either in ignorance or in an effort to gain glory as obstructionists prevent its complete disappearance. Anti-vaccination becomes a faith to some where worship and practice are utterly blind to all else. In England particularly is this true, so that in 1896 the hundredth anniversary of Jenner's discovery of the use of vaccination, there occurred a deadly epidemic of smallpox in the town where he had lived and done his work; a sad commentary on the wits of men.

LEPROSY

Leprosy is a very slowly developing disease of the skin and nerves. There is present in its course a series of striking changes. Usually first there are red patches in the skin with numbness. These often bleach out to almost a pure white. In these areas there is a thickening with at times the formation of tumors which may ulcerate and discharge. The eye-brows, the eye-lashes and the whiskers fall out. The finger and toe nails drop off, the features get coarse and thickened, the lining of the mouth and throat are affected and the voice lost. The fingers and toes may ulcerate away.

Altogether it is a loathsome disease. The germ causing it is similar in character to the one causing tuberculosis.

Leprosy prevailed among the Egyptians as early as 2400 B.C.

In India and China it was present at least 1000 B. C.

The Old Testament speaks of it often. It is even said it was because the Israelites became so badly infected with it that they were driven out of Egypt.

Apparently it was the Persian War that introduced this disease into Greece and from there it spread to Italy and Europe.

It became so common in France in the 6th and 7th centuries that the segregation of lepers was first begun with no diminution in its prevalence.

In the 15th and 16th centuries more attention was given to its control and it was at this time so many homes for these people were built.

It is said that in France 1,500 such institutions were erected and in all of Western Europe there were 19,000. Possibly this is exaggerated, but at all events there were many of them.

Lepers were generally known as Christ's poor and the hospitals for them were under the special care of St. Lazarus and so were called Lazarettos. They were managed and manned by priests who were themselves lepers.

Though vigorous attempts were made to isolate all in such places, it could not be done, so that those who were at large had to wear a special garb to warn others in the daytime and at night carry a bell.

When a leper bought things on a market he had to stand off and point out his choice with a stick. He could touch nothing others might handle. He could not talk to others above a whisper or eat with anyone else excepting a leper. He was feared and shunned by all. Food would be carried out and given him without contact.

It is also said that, because of the incurability of the disease and the isolation from fellow men, worse than death, the Church at one time pronounced the funeral service over one as soon as he was declared a leper.

It gradually diminished during and since the 17th century until now there are a few only in parts of Norway and Russia.

In the United States it has been present off and on since its early days. It was first brought to Florida by slaves. It has since come in occasionally from Norway, China, Russia and the Islands of the Pacific.

The United States has had considerable to do with it since we have acquired the Hawaiian Islands and the Phillipines. In this country it does not spread. When lepers adopt the American way of living apparently its means of transmission is gone.

Every large clinic now and then has a case drift in which has been undiagnosed previously. In New York it is always present. In Ann Arbor they have a few cases.

If the papers learn of one of these at once a great fuss is made and life is often made miserable for the poor victim. The public is afraid to have one around and it also forbids his transportation. He becomes a hounded outcast to the discredit of our professed humanity.

Its mode of transmission is still an unsolved mystery. It is known that in a large proportion of the victims it starts in the feet or nose. It is also known that those who go barefooted are more apt to have it. It somehow spreads from person to person, but the contact must be prolonged and intimate.

The case of Father Damion is well known. He went as a Belgian Missionary to the Molokai Leper Asylum in the Sandwich Islands in 1873 to minister to the afflicted residents. In 1882 he was found to have the disease from which he died seven years later.

On the other hand in Ceylon there is a large lepersarium and it is said that no nurse in attendance on the patients there has ever acquired the disease. Only 10 per cent of children born of leperous mothers have leprosy. Physicians do not get it through caring for such patients.

No animals are susceptible to it so far as we know, though some claim it is a disease of rats. Attempts to show that its spread is due to insects have so far failed.

In recent years a treatment has been developed which seems to have cured many and has given new hope that at last a means has been found to stay its horrible ravages.

This treatment consists of the injection by hypodermic syringes of certain acids obtained from Chaulmoogra oil, a product of certain tropical trees.

(Abstracted from Vaughan On Public Health)

(To be Concluded.)

THE JOURNAL

IS

YOUR FORUM—

WE INVITE YOU

TO UTILIZE

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EXPRESSION OF

YOUR VIEWS

ON

MEDICAL SUBJECTS

PUBLIC HEALTH ACTIVITIES

Edited By

MICHIGAN DEPARTMENT OF HEALTH

PHYSICAL FINDINGS IN THE EXAMINATION OF 12,344 INFANTS AND PRE-SCHOOL CHILDREN —CLASSIFIED BY AGE GROUPS AND SEX GROUPS

The Michigan Department of Health, through its Bureau of Child Hygiene and Public Health Nursing, maintained a clinic for infants and pre-school children from September 1, 1922, to July 1, 1925. During that period the clinic visited 77 counties. Clinics have been held from Berrien county in the extreme southwestern corner of the state, to Chippewa county in the extreme northeast; from Monroe county in the southeast, to Gogebic county in the farthermost point to the northwest; from the Indiana line to Keweenaw county, jutting into Lake Superior.

The findings at the clinic represent the average physical condition of the infants and preschool children of rural Michigan, whether white or black, or children of American or foreign born parents. The clinics were rarely held in towns of more than 10,000 population.

Twelve thousand, three hundred and forty-four infants and pre-school children, (i. e., children under six years of age), were examined at the clinics. The physical examinations were made for the most part by three physicians. In order that pathological conditions and defects might be carefully noted, the number of children examined was limited as far as possible to 30 a day.

Of the 12, 344 children examined:

Girls numbered 6,307, or 51.1 per cent.

Boys totaled 6,037, or 48.9 per cent.

By sex groups and age groups the attendance was as follows:

Ages	Boys	Girls	Total
Under one year	1,435	1,380	2,815
Under two years	1,225	1,174	2,399
Under three years	1,079	1,111	2,190
Under four years	890	982	1,872
Under five years	832	1,001	1,833
Over five years	576	659	1,235
Grand Total	6,037	6,307	12,344

The 12,344 children showed a total of 24,229 pathological conditions and defects, or an average of 1.9 defects to each child, almost two defects per child.

By sex groups, the 6,037 boys had 13,063 defects, or 2.1 defects per boy. The 6,307 girls had 11,166 defects, or 1.7 defects per girl. Phimosis was found in 1,642 boys, deducting this from the total of 13,063 defects in boys leaves 11,421 defects in boys against 11,166 defects in girls, boys still leading in defects over girls.

Pathological conditions and defects were fewest per individual under one year of age, increasing per child to the sixth year. A percentage table shows as follows:

Age Groups	Av. No. Defects per Child Boys	Girls	Total	Percentage of Children Examined in each Age Group
Under one year	1.5	1.0	1.2	22.8
Under two years	1.8	1.3	1.6	19.4
Under three years	2.2	1.6	1.9	17.7
Under four years	2.5	2.1	2.3	15.3
Under five years	2.7	2.5	2.6	14.8
Over five years	3.1	2.8	3.0	10.0

The children under one year averaged but little more than one defect each. Each year following, the percentage of defects increased until in the sixth year each child averaged three defects.

FREQUENCY OF DEFECTS AND PATHOLOGICAL CONDITIONS

In the total number of defects, 24,229, the rachitic group led in frequency as follows:

Average Rickets	1,144
Bone and Muscle Defects	3,048
Decayed Teeth	2,211
Total of Rachitic Group	6,403

The rachitic group contributed more than one-fourth of all defects and were present in 51.8 per cent of all children examined. The percentage of boys and girls affected was practically the same, 26.6 per cent of the boys being rachitic and 25.6 per cent of the girls. The frequency by age groups increased from 34.1 per cent in the first year of life to 79.8 per cent in the sixth year of life.

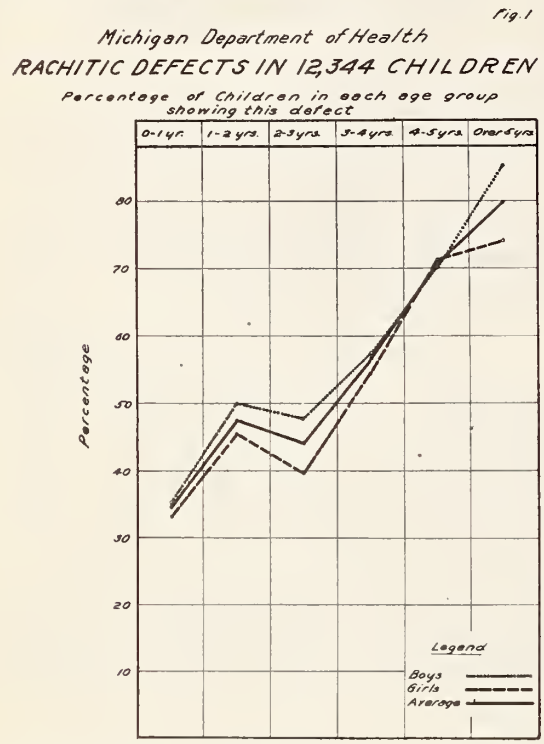
This is illustrated in Figure 1, and it will be observed that the second year of life (ages 1 to 2) showed a higher average than the third year of life, after which the percentage rose steadily until the sixth year. Between the fifth and sixth years, however, the curve for the girls shows but slight increase, while the curve for the boys rises sharply.

Next in frequency were defective tonsils and adenoids:

Defective tonsils numbered	3,839
Defective adenoids numbered	1,306
Total	5,145

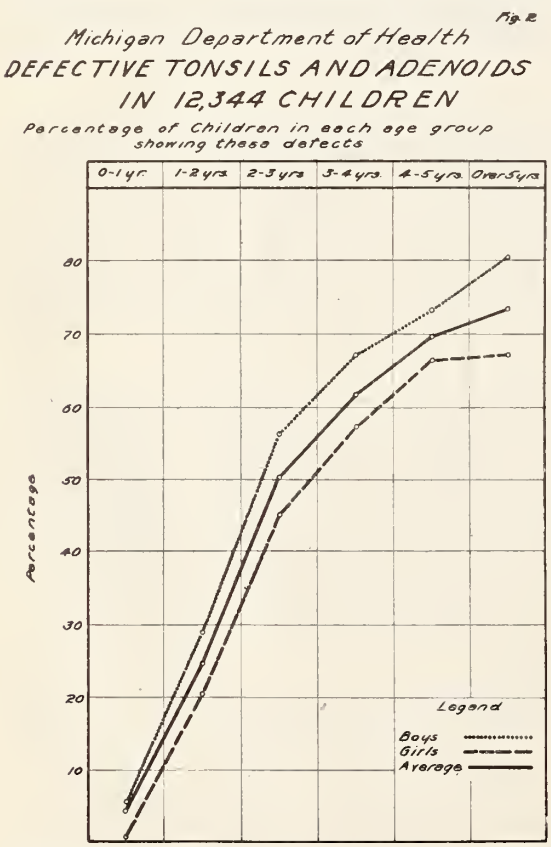
More than one-fifth of all pathological conditions and defects were due to this cause. Defective tonsils and adenoids were present in 41.6 per cent of all children examined. The percentage of boys affected was 44.5 and the

percentage of girls affected was 38.9. The frequency by age groups increased from 4.2 per



cent in the first year of life to 73.4 per cent in the sixth year of life.

Figure 2 illustrates the age distribution of these defects. From the first to the third year



of life the rise is very rapid from about 4 per cent to above 50 per cent, an increase of about 46 per cent, while for the next three years the increase is but slightly over 20 per cent. This indicates that the development of this class of defect is much greater early in life and tends to decrease with age. While early tonsillectomy would increase this showing it is doubtful if this is an important factor in this instance.

Children who were 10 per cent under weight numbered 2,685, or 21.7 per cent of all children examined. Girls led in frequency for the sex groups as follows:

Boys .....20.8 per cent.
Girls .....22.6 per cent.

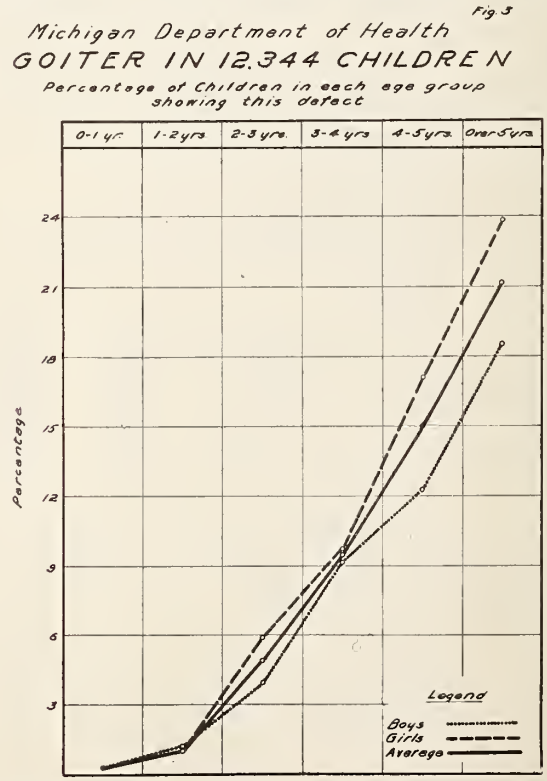
In age groups, the first year of life led with 30.2 per cent of all the children in that age group. The next highest age group was between five and six years with 25.9 per cent. The lowest percentage of under weights occurred between three and four years of age, 16.7 per cent.

Enlarged glands were found in 2,636 children.

Respiratory diseases were diagnosed 948 times. Boys showed 7.8 per cent, girls 7.5 per cent. The greatest frequency in the age groups was found between one and two years of age.

Heart murmur was present in 380 children; boys 184, girls 196. The period of greatest frequency was five to six years of age.

Enlarged thyroid was present in 855 children; boys 349, or 5.7 per cent, girls 506, or 8 per cent. The total percentage for all ages



was 6.9. The total percentage under one year of age was .2, increasing to the sixth year to

21.3 per cent of all children examined at that age.

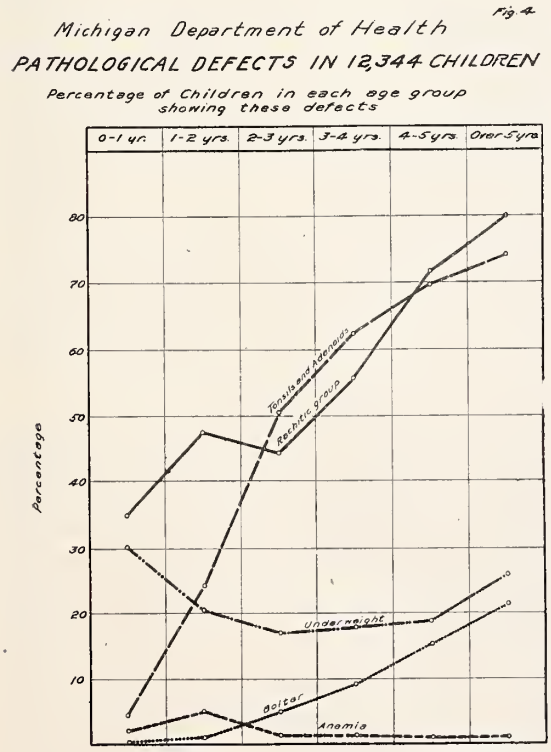
Figure 3 illustrates the findings of enlarged thyroid. Other surveys made by the department indicate that this condition varies enormously geographically and that we may expect that while some districts may be practically free from this condition, other districts will show an incidence of 80 per cent or more in the school population. This survey representing a cross section of 77 counties of the state, may be regarded as a fairly representative sample of the actual conditions. The rapid rise of these curves from birth to the sixth year clearly indicates the significance of this condition and the menace to the public health. It will be interesting to see the reduction in a few years when the effect of the iodized salt now so generally used in this state shall have had time to become manifest.

Persistent thymus was present 16 times; boys 14, girls 2. Of the 16 cases 9 were diagnosed in the first year of life.

Mental defectives numbered 102, boys 45, girls 57.

Anemia was present in 317 children; boys 166, girls 151. The period of greatest frequency was in the second year.

Congenital defects totaled for all groups 471; boys 289, girls 182. In the first year of life, boys had 78 congenital defects, girls 37.



Hernia for all groups numbered 426, boys leading with 247, girls 179.

Figure 4 illustrates the relation of the different defects to each other in the age groups and is so clearly set forth that comment seems unnecessary.

SUMMARY

1. Physical defects are more common in boys than in girls.

2. Physical defects are accumulated, increasing in frequency to the sixth year.

3. Rachitic conditions lead in frequency of defects. The percentage as noted is less than actually occurs because in the first and second years of the clinic, signs of rickets were not so carefully noted on the charts as they were in the third year of the clinic.

4. Defective tonsils and adenoids are second in frequency of pathological conditions.

5. The frequency of respiratory diseases in the second year of childhood in a clinic for supposedly well children should be considered in relation to the advancement of respiratory diseases from third to second place as a cause of death of the child under five years of age.

6. The frequency of under weight is closely associated with the frequency of artificial feeding in the first year of life.

B. M. H.

WASSERMANN TEST TO BE REPLACED BY KAHN PRECIPITATION TEST FOR ROUTINE SPECIMENS IN THE LABORATORY OF THE MICHIGAN DEPARTMENT OF HEALTH

On October 15, 1925, the laboratory of the Michigan Department of Health will cease to run the Wassermann test on routine specimens for the diagnosis of syphilis. Only the Kahn precipitation test will be reported upon. This change of procedure was authorized by the Advisory Council of Health at the recommendation of the Commissioner of Health at a meeting held at Houghton, Michigan, August 10, 1925.

Ample confirmatory evidence of the reliability and specificity of the Kahn test has been placed before Michigan physicians. There are several reasons for the change in procedure. They are both economic and scientific.

Physicians who have been practicing medicine in Michigan for three years or more will have no difficulty in handling their treated cases as the Kahn precipitation test has been reported in parallel with the Wassermann test for more than three years. There should be in the files of every physician a report on his cases to compare with the current results of the Kahn test. In the event that there were discrepancies between the Kahn test and the Wassermann test, the laboratory will be pre-

pared to run a Wassermann test on specimens of blood in parallel with the precipitation test provided the physician sends in complete data on his patient.

Particularly in the northern peninsula will this change in service be of value. Formerly the blood specimens for the diagnosis of syphilis were examined only two times, or occasionally three times a week. Under the new arrangement they will be examined and reported upon on the day of arrival at the laboratory. This should stimulate the physicians of the northern peninsula to send in a greater number of specimens, and is in line with the request of the medical profession for more prompt service on blood specimens.

In the Lansing laboratory any specimen that is received by 11:30 o'clock in the morning will be reported upon that day, and under no circumstances will there be more than a 24 hour interval in sending out reports. The congestion of the Lansing laboratory had reached a point where it was necessary in some instances to hold blood three days before making reports where both the Wassermann and Kahn tests were run.

The simplicity and accuracy of the Kahn precipitation test in the hands of well trained personnel make it a more dependable test than the Wassermann test as ordinarily run by diagnostic laboratories.

The results of the tests are interpreted in the same way as the Wassermann since the method of reporting is based upon a comparison of more than 160,000 parallel tests in the Lansing laboratory, and by many thousand reports made by contemporary investigators.

R. M. O.

Reliable statistics concerning the incidence of syphilis are very difficult to obtain. The exact proportion of men and women who are so afflicted has never been accurately determined. The number of inmates of Michigan penal institutions who suffered from syphilis upon admission is available for the past three years. The three year period is summarized in the following table:

Fiscal Year	Total Admissions	Number Admissions Syphilis	Per Cent Admissions Syphilis
1922	2,085	296	14
1923	2,782	337	12
1924	3,707	382	10
Total	8,574	1,015	12

If only half as many of the adult male population are suffering from syphilis as these prisoners, the estimate of six cases in every hundred gives some idea of the extent of the problem.

PREVALENCE OF DISEASE

August Report—Cases Reported

	July 1925	August 1925	August 1924	Average
Pneumonia	158	137	87	132
Tuberculosis	549	247	541	514
Typhoid Fever	69	114	99	176
Diphtheria	204	200	260	437
Whooping Cough	732	788	556	596
Scarlet Fever	434	269	436	360
Measles	456	109	152	193
Smallpox	43	30	71	81
Meningitis	5	5	8	11
Poliomyelitis	11	11	73	47
Syphilis	1,049	1,128	874	705
Gonorrhea	1,012	801	743	937
Chancroid	5	8	10	14

CONDENSED MONTHLY REPORT

Lansing Laboratory, Michigan Department of Health

August, 1925

	+	—	+—	Total
Throat Swabs for Diphtheria				820
Diagnosis	57	328		
Release	67	118		
Carrier	4	207		
Virulence Tests	12	27		
Throat Swabs for Hemolytic Streptococci				617
Diagnosis	99	285		
Carrier	57	176		
Throat Swabs for Vincent's	13	364		377
Syphilis				9931
Wassermann	767	4233	61	
Kahn	904	3930	36	
Examinations for Gonococci	160	1972		2132
B. Tuberculosis				384
Sputum	73	304		
Animal Inoculations		7		
Typhoid				428
Feces (Includes Brightmoor Survey)	10	301		
Blood Cultures	2	31		
Urine		6		
Widal	16	62		
Dysentery, Inc. Brightmoor Survey		592		592
Intestinal Parasites (Includes Brightmoor Survey)				252
Transudates and Exudates				278
Blood Examinations (not classified)				275
Urine Examinations (not classified)				406
Water and Sewage Examinations				1205
Milk Examinations				23
Toxicological Examinations				9
Autogenous Vaccines				9
Supplementary Examinations				285
Unclassified Examinations				339
Total for the Month				18361
Cumulative Total (Fiscal year)				37001
Increase over this month last year				443
Outfits Mailed Out				12872
Media Manufactured, c.c.				641230
Diphtheria Antitoxin Distributed, units				6578000
Toxin-Antitoxin Distributed, c.c.				6700
Typhoid Vaccine Distributed, c.c.				2402
Silver Nitrate Ampules Distributed				3132
Examinations Made by Houghton Laboratory				1358

The Official Minutes of the 105th (60) Annual Meeting of the Michigan State Medical Society, Held in Muskegon, Michigan, Sept. 8-9-10th, 1925

THE COUNCIL

MINUTES OF 1925 ANNUAL MEETING

The Council met in its First Session of the 1925 Annual Meeting, in Muskegon at 11:00 a. m., September 8th, 1925, with the following Councillors present:

Chairman, J. B. Jackson; Vice-Chairman, R. C. Stone; McKenzie, Lefevre, Van Leuven, Darling, Randall, Corbus, Green, Bruce, Ricker, Secretary-Editor Warnshuis, Executive-Secretary Smith, President C. C. Clancy and Treasurer Welsh.

The Chairman presented the Annual Report of the Council to the House of Delegates, which on general discussion, was approved on motion of Stone and Corbus.

VanLeuven-Ricker moved that the Council's Executive Committee consider a rearrangement of County Societies into new Councilor Districts and report their recommendations to the January meeting of the Council.

VanLeuven-Stone moved that the arrangement perfected by Councilor VanLeuven receive the approval of the Council. Carried.

On motion of Ricker-Randall the Chairman was directed to appoint a special Committee to draw up suitable resolutions on the death of Dr. A. L. Seeley. The Chairman appointed Randall, Bruce and Darling.

On motion of MacKenzie-Stone the minutes of the Executive Committee were approved.

On motion of Randall-Stone the Chairman was directed to present to the General Session the salient features of the work of the past year.

SECOND SESSION

The Second Session of the Council was called to order at 5 p. m., September 8th, with the following Councillors present: Jackson, VanLeuven, Green, Darling, Stone, LeFevre, Walker, Corbus, Randall, Bruce, Ricker, McKenzie, Secretary Warnshuis, Executive Secretary Smith, Ex-President A. P. Biddle.

The Council recommended to the House of Delegates that there be appointed a special committee on Nursing Education—(See Minutes of H. of D.)

Telegram was read from F. S. Baird imparting that he was detained from attending the Council meeting because of the illness of his wife. The Secretary was directed to convey to Dr. Baird the Council's best wishes for Mrs. Baird's speedy recovery.

On motion of Randall-Ricker, the Chairman was directed to appoint a committee of three, of which the Chairman is to be one, to arrange for a Conference with the Regents of the State University for the purpose of discussing the establishment of a Post-Graduate School in the Medical Department. The following committee was appointed: Jackson, Corbus, Stone.

THIRD SESSION

The Third Session convened at 12, noon, September 12th, with the following Councillors present: Jackson, Corbus, Ricker, McKenie, Stone, LeFevre, Darling, Green, Randall, Ricker, Ex-President Dodge, Treasurer Welsh, Secretary Warnshuis, Ex-Secretary Smith.

After discussion Corbus-Bruce moved that the Chairman appoint a Committee to recommend appointees for the State Board of Registration in Medicine and that the Committee draw to the Governor's attention the desirability that he make his appointments from this list. The following Committee was so appointed: Randall, Green, McKenzie.

FOURTH SESSION

The Fourth session of the Council was attended by Jackson, Corbus, Green, LeFevre, Ricker, Charters, Bruce, Randall, Stone, Secretary Warnshuis, Ex-Secretary Smith, President-elect Darling.

On motion of Corbus-Green the plan submitted by Executive-Secretary Smith for District Conferences and Post-Graduate Courses was approved after full discussion.

On motion of Corbus-Bruce the transportation facilities and means of the Executive Secretary was referred to the Executive Committee with power to act.

The resignation of C. G. Darling as Councillor was received and accepted.

On motion of Stone-Ricker, the question of discontinuing Exhibits at our annual meeting was referred to the Executive Committee to report at the January meeting.

Election: On motion of Stone-LeFevre,

J. B. Jackson was elected Chairman of the Council for the ensuing year. On motion of Corbus-Randall, R. C. Stone was elected Vice-Chairman for the ensuing year.

On motion of Randall-Bruce, the Council voted to hold its mid-winter meeting in Ann Arbor at a date to be determined by the Chairman.

On motion of LeFevre-Bruce, the Executive Committee was directed to consider the place for the holding of the next Annual Meeting and report at the January meeting of the Council.

On Motion of Ricker-Charters the thanks of the State Society was tendered to the profession, Press and Public of Muskegon for the courtesy and hospitality manifested to the members during this Annual Meeting.

The Council did then adjourn.

J. B. Jackson, Chairman.
F. C. Warnshuis, Secretary.

GENERAL SESSION

WEDNESDAY EVENING, SEPTEMBER 9, 1925

The first general session of the Michigan State Medical Society convened at 7:45 Wednesday evening, September 9, 1925, at the Regent Theatre, President C. C. Clancy presiding.

PRESIDENT CLANCY: Ladies and Gentleman, the meeting will please come to order.

The invocation will be made by the Rev. Archibald Hadden, of Muskegon.

REV. ARCHIBALD HADDEN: O God, our Father, Creator, Life-giver, Friend of all Thy wonderful human family, we come to Thee tonight with thanksgiving for the light that is breaking all around the circle on the great human needs, the great opportunities of our time. We come to ask Thee for Thy blessing, for Thy help to this convention, this gathering of these servants, who are engaged in the great crusade against indifference and ignorance, against superstition, against all the heavy burdens that might be relieved. And we pray Thou wilt bless them that in this great effort to build up a mighty fabric of intelligent, scientific knowledge and practice, they may not be discouraged or weary in well doing, that they may be able at this time in this convention to make some little mark of progress in the great movement toward the better day in the effort to overcome sickness, disease and suffering and to bring in the day when men shall be relieved of all the burdens and sorrows that may be relieved. So wilt Thou be with them, be with those who speak to us tonight, be with the conferences tomorrow, be with these men as they go back to their duties and opportunities. May the great work in which they are engaged go on steadily and persistently and triumphantly, we ask in the name of our great Master who went about doing good, who told us to heal the sick, and in every way lifted the burdens of humanity. Amen.

PRESIDENT CLANCY: Dr. R. J. Busard, President of the Muskegon County Medical Society, will now deliver an address of welcome.

DR. R. J. BUSARD: Mr. President, and Fellow Members: It is my pleasure in behalf of the Muskegon County Medical Society to welcome you to this city for your meeting. You are now within the bounds of the city of lakes. Once we were famous as the greatest lumbering center in the world, with forty-seven great sawmills fringing the banks of our lake shores. Today we are a city of beauty, thrift, culture. We are still the home of industry, with 230 thrifty manufacturing plants replacing the mills of other days.

In Muskegon you will find two well equipped hospitals and a sanitarium. It is a city with a highly developed school system and a junior college under construction. We are proud of our library and art gallery. Nor do we lack in social equipment. Members of our Society have been busy in the last few weeks making arrangements for your comfort and entertainment. The clubs throughout the city are at your disposal; your badges will admit you. The Country Club is within easy access of the city, and those of you who brought your clubs along may play as long and as often as you wish.

Again, it is my pleasure to welcome you to every privilege our growing city affords. (Applause).

PRESIDENT CLANCY: The next will be announcements from the Secretary of the Michigan Medical Society.

SECRETARY WARNSHUIS: President Clancy, Dr. Crile, and Members of the State Society: It is just my brief duty to convey to you the information of the transactions of the House of Delegates, which convened in its first session yesterday afternoon at 2 o'clock. The afternoon session was consumed in the receiving of the customary annual reports of our standing committees and the officers of the Society as well as the recommendations of the Council. Yesterday evening's meeting was consumed with consideration of these reports, and the action taken thereupon. This afternoon's session, which completed the work of the House of Delegates, ended with the election of the various officers for the ensuing year. These transactions you will find reprinted in The Journal and I am not going to consume your time in reciting them in detail.

I do want to mention, however, that the first rather important resolution that was adopted by the House authorized the appointment of a committee by the President of your Society which shall review the present standard of nursing education, and to join in with the Hospital Association of Michigan in formulating a more acceptable standard of nursing education.

The second resolution that is of importance was an endorsement of the magazine Hygeia with which some of you men are familiar, published by the

American Medical Association, and urging upon you to join in with the concerted support of that publication, which is your missionary agent to the people at large to enlighten them as to the truths of modern scientific medicine, and to disabuse their minds of a lot of these theories, or so-called theories that are based upon science, so-called, that are being promulgated by those who do not belong to the school of medicine.

The urgent support of the members of our State Society of this magazine, Hygeia, is one of the things that you as individual members owe to your organization and to the people of your community in order to educate them, to enlighten them as to the truth of scientific medicine.

Another matter that is of some concern which I will just mention is the authorization of a committee that will draw up a standard report blank in order that you may be relieved of the clerical work that you are now being called upon to perform in answering the questions of insurance companies and compensation boards regarding the accidents and injuries and sickness of disabled and injured employes. We are trying to secure for the state a standard blank that is simple and yet to the point and which will supply all the information that is necessary and do away with these hundred and one questions that you are now being asked to answer whenever you have a man who may have barked his finger.

The elections this afternoon resulted as follows:

Councilor for the First District to succeed F. B. Walker, whose term expired, J. Hamilton Charters of Detroit.

Councilor for the Second District, B. F. Green of Hillsdale, to succeed himself.

Councilor of the Third District, R. C. Stone of Battle Creek, to succeed himself.

The following Vice-Presidents were elected:

First Vice-President—R. J. Busard of Muskegon.

Second Vice-President—H. M. Malejan of Detroit.

Third Vice-President—A. L. Callery of Port Huron.

Fourth Vice-President—E. J. Evans of Ontonagon.

Our state organization, by the reappointment plan of the American Medical Association, is now entitled to an additional delegate. Where we have had four heretofore, we now have five delegates, and this extra delegate was elected this afternoon in the prson of Carl F. Moll of Flint, with Louis J. Hirschman of Detroit as his alternate, and Dr. Earl Chapman of Cheboygan to fill the unexpired term of Dr. Moll, who was one of our alternate delegates.

That, in detail, Mr. President, comprises most of the activities of our House of Delegates, but as I said at the beginning, the full and detailed discussions and minutes will appear in the next issue of The Journal, and I want to leave something for you that will interest you to look forward to the next issue of The Journal and at least once a year take off its wrapper when it comes to your office.

Mr. President, the nominations according to our Constitution and By-Laws for the President of our State Society for the ensuing year are now in order.

PRESIDENT CLANCY: As announced by the Secretary, nominations for the office of President of the Michigan State Medical Society are now in order.

DR. CARL F. MOLL (Flint: Mr. President, Ladies and Gentlemen: I deem it a great honor as well as a privilege to place in nomination for President of the Michigan State Medical Society a man who was long identified with the best activities of this organization, a man who has served zealously in various capacities, a man who is a professional leader not only in his own community, but in the state as well, a man of whom we have every reason to be proud. In conferring this great honor upon him, you are conferring a great honor upon yourselves.

Gentlemen, I present to you the name of Wm. P. West of Ontonagon County.

(The nomination was seconded by two delegates).

PRESIDENT CLANCY: Any further nominations?

Dr. A. C. GARBER (Detroit): I want to present to you the name of one who has been loyal to the medical profession for years, a man who has stood his stand in all places before all people and at all times for the advancement of medicine and surgery. The name of this gentleman is C. G. Darling of Ann Arbor. I wish to place his name in nomination as President of the Michigan State Medical Society for the ensuing year.

PRESIDENT CLANCY: Are there any further nominations for president?

DR. J. HAMILTON CHARTERS (Detroit): I wish to second the nomination of Dr. Darling.

DR. WM. P. WEST: I appreciate very much the honor conferred upon me by my friend in presenting my name to the Society, but I prefer to have my name withdrawn in favor of Dr. Darling.

PRESIDENT CLANCY: Are there other nominations for president? If not, the chair will declare the nominations closed. They are closed.

Dr. Garber, will you kindly preside for a few minutes?

(Dr. Garber took the chair).

CHAIRMAN GARBER: We will now listen to the President's annual address by Dr. C. C. Clancy of Port Huron.

(President Clancy read his address, Published in this issue)

PRESIDENT CLANCY: By request of the Council, Dr. John B. Jackson of Kalamazoo will be invited to discuss some of the matters of the State Medical Society with you.

DR. JOHN B. JACKSON: Mr. President and Members: I should like to state that I didn't have any advance sheet of Dr. Clancy's address, and if I had I think I should have refused to comply with the request of the Council that I make a report to you tonight, for I fear that what I have to say is largely a repetition of what Dr. Clancy has already said. Inasmuch as it is brief and as I present these matters from a somewhat different point of view, I will take a chance and read what I have written.

The Coucnil has asked me, as its chairman, to present briefly to you tonight some of the activities of your State Society since our last Annual Meeting.

At the Mt. Clemens meeting, membership dues to the State Society were raised to ten dollars a year. At this time a program for the year was proposed. It is my purpose tonight to tell you how this program has been carried out.

Immediately after our last meeting, an executive committee of the Council was formed. This committee consists of the Chairman of the Council and the Chairman of each of the three standing committees of the Council, and our Secretary-Editor. This committee has met monthly to pass on plans and policies for our State Society work. At many of these meetings our President has been present and has thus had an active part in directing the course of our activities.

Almost the first action of this Executive Committee was the selection of Mr. Harvey George Smith as a full time field secretary. This choice was later ratified by the Council as a whole. His work has been that of assisting County Secretaries, arranging for district conferences, assisting in our legislative activities and in promoting interest in the general work of our state organzation. Your Council takes great pleasure in reporting that Mr. Smith has fully justified our choice of him for this position. The present satisfactory condition of our state organization is to no small degree due to his efficient work.

I would like to report in this connection that our membership at this time is about thirty-five more than it was at this time a year ago.

During the past year there have been conducted sixteen post-graduate councilor district conferences—twelve in the lower peninsula and four in the upper peninsula. I have already referred to these at the session this morning. In the opinion of your Council, this is one of the best things achieved by your Society in recent years. It is a means of bringing post-graduate facilities to the rank and file of our membership.

The work of the legislative committee for the past year merits the approval of our membership. This committee has been very active and has given very much of its time to this work. Mr. Smith and our Secretary-Editor have also rendered much service in this connection. Members of the medical profession, who were members of the legislature, assisted greatly in our legislative program. By working unitedly and harmoniously results were obtained.

Our Medico-Legal Committee has been continuing the policies worked out since its organization fifteen years ago. Few of us have occasion to appreciate fully the protection which our Society offers through the very efficient work of this committee. Those of you who have called upon them for assistance can best appreciate what the State Society has to offer in this regard. We feel that the protection afforded through our Medico-Legal Committee is of itself worth all and more than our membership dues.

The Joint Committee on Public Health Education is carrying on another important part of the program of our State Society. This committee, as you know, has to do with the matters of educating the public in regard to medical matters. There has been in recent years an increasing appreciation of the fact that the best way of meeting quackery and development of the various cults is to acquaint the people in general with the more recent application of scientific developments to the prevention and cure of the disease. An appreciation of the truth will best guard the interests of the public in matters of health as in everything else. With this in mind your committee, working wtih the University of Michigan, the State Anti-Tuberculosis Society, the State Dental Society, the State Nurses Association and other similar organizations, has carried on a course of public health lectures under the direction of the Extension Department of the University of Michigan. Each year there is an increasing appreciation of this movement and the extent of this work is really limited only by the supply of speakers available to the committee. Other means of carrying on the work of Public Health Education are now being formulated by this committee.

Our Journal represents an important phase of our Society activities. It carries each month a number of important scientific papers which are practical and very much worth while.

In addition to this, the Journal publishes all of the transactions of your Society and its officers. If every member read carefully his Journal, there would be no occasion for such a talk as this. No member has any reason to be uninformed as to what the State Society is doing or what is its financial condition. All this information is published in full in The Journal.

I wish also to call your attention to the new department of Health and to bring about a better spirit of co-operation by this department and the physicians of the state.

In addition to this, The Journal is an open forum by which means any member may bring his ideas and opinions before the profession. The Journal is your paper and its purpose is to serve you.

In conclusion I wish to say that in the opinion of your Council the most important work of our State Society is the work of its component units, the County Societies. On the interest and activity of each component unit depends our state organization. Our field secretary, Mr. Smith, has drawn up a proposed minimum program to your officers. The entire machinery of the State Society is available for putting this program into operation. Your President, the Council, Secretaries, committees and The Journal are ready to be used in helping you make your County Society a success.

PRESIDENT CLANCY: Now that we have finished the matter of making reports at this first general meeting of the Michigan State Medical Society and have done what we thought we might be able to do in the way of telling you what has been done during the past year, we have the privilege—and let me repeat that word "privilege"—of having with us, ready to talk to us upon scientific work, a speaker who is a man so widely known in this country of ours and elsewhere that to mention his name is but to recall to you the name of somebody that you have heard much about. It is my privilege and my pleasure to introduce to you at this time that great surgeon of Cleveland, Ohio, Dr. George W. Crile. (Applause).

DR. GEORGE W. CRILE: Mr. President, Ladies and Gentlemen: Before I begin to read my paper, I would like to make a sort of apology to the members of the audience who are not medically trained. I fear these will find little interest in what I shall have to say unless possibly you may glimpse something of why you may feel so badly when you have a disordered liver.

(Dr. George W. Crile read his address on "Prob-

lems Relating to the Liver and Billiary Tract"—Paper to be published).

PRESIDENT CLANCY: The President ought to have announced that our friend from Ann Arbor, having no opposition, would be declared the only nominee of this convention.

Are there any resolutions? If there are no resolutions, we have reached the end of our program.

We thank you very much for coming to us tonight. Unless there is some one in the audience who desires to present something more to this convention, I will declare the meeting adjourned.

(The meeting adjourned at 9:15).

GENERAL SESSION

THURSDAY NOON, SEPTEMBER 10, 1925

The second general session convened at 12:20 at the Armory Auditorium, President Clancy presiding.

Secretary Warnshuis: The only nomination that has been presented to your organization for President for the ensuing year is that of Dr. C. G. Darling of Ann Arbor.

PRESIDENT CLANCY: You have heard the announcement made by the Secretary of the nomination of Dr. Darling for President for the coming year. A motion that he be elected is now in order.

DR. R. C. STONE (Calhoun): It is with a great deal of pleasure that I move that Dr. Darling be elected as president of this Society for the ensuing year unanimously by this body.

(The motion was seconded and carried unanimously).

PRESIDENT CLANCY: Dr. Darling is elected President for the coming year.

I wish Dr. Darling were here. I have the feeling that I would like the personal pleasure of introducing him to this convention as your next President, but it seems that he isn't here.

The second general session of the State Medical Society will now adjourn if it is your pleasure.

(The meeting adjourned at 12:25).

HOUSE OF DELEGATES of the MICHIGAN STATE MEDICAL SOCIETY

Occidental Hotel, Muskegon, Michigan, September 8-10, 1925.

The first session of the House of Delegates of the Michigan State Medical Society, meeting in its One Hundred and Fifth Annual Session, was called to order in the convention hall of the Occidental Hotel, in Muskegon, September 8, by the Speaker, Dr. J. E. King, of Detroit.

Dr. J. Hamilton Charters, of Detroit, Chairman of the Credentials Committee, reported that there were twenty-five delegates entitled to seats in the House.

The Secretary, Dr. Fred C. Warnshuis, stated that he held the signed roll call of twenty-five accredited delegates, and moved that this roll call constitute the official roll call of the first session. The motion was seconded and carried.

Dr. A. W. Hornbogen, of Marquette, occupied the chair while the Speaker of the House read his address, which was referred to the Business Committee. The Speaker resumed the chair and called for the address of the President of the Society, Dr. C. C. Clancy, of Port Huron. President Clancy's address, after presentation, was referred to the Business Committee.

Dr. J. D. Jackson, of Kalamazoo, read the report of the Council, which was referred to the Business Committee.

The following nominees were elected for the Nominating Committee:

Nominator	Nominee
George Frothingham, Detroit.	John L. Chester, Wayne.
Carl Moll, Genesee.	T. Heavenrich, Port Huron.
Hugh Stewart, Flint.	A. W. Hornbogen, Marquette.
A. W. Hornbogen, Marquette.	J. D. Brook, Grandville.
J. D. Brook, Grandville.	H. Cook, Genesee.
E. J. Evans, Ontonagon.	Henry R. Carstens, Wayne.

On motion of Dr. A. W. Hornbogen, of Marquette, duly seconded and carried, the nominations were closed. The Speaker appointed as tellers, Doctors Hirschman, Welsh, and Dodge. The ballots were cast, and the following five nominees were elected, with the recorded number of votes:

John L. Chester, 21; T. Heavenrich, 24; A. W. Hornbogen, 23; J. D. Brook, 21; H. Cook, 24.

The Speaker appointed on the Business Committee the following members:

Harry M. Malejan, Wayne, Chairman; N. E. Chapman, Cheboygan; Chas. F. Kuhn, Detroit; W. T. Dodge, Big Rapids; L. J. Hirschman, Detroit.

REPORTS OF STANDING COMMITTEES

Civic and Industrial Relations Committee—The Chairman, Dr. T. Heavenrich, of Port Huron, gave a summary of the report printed in the program, which was referred to the Business Committee.

Legislative Committee—No report received.

Veneral Disease Prevention Committee—Dr. L. J. Hirschman, of Detroit, reported that the Chairman of the Committee had called no meetings during the year.

Public Health Education—Report printed in the program and referred to the Business Committee.

Delegates to the A. M. A.—The report was presented by Dr. C. S. Gorsline, of Battle Creek, and referred to the Business Committee.

Tuberculosis—No report received.

Medical Education—Dr. A. P. Biddle, of Detroit, called attention to the report printed in the program, and asked that it be amended by adding to the names of the signers that of Dr. Hugh Cabot.

Dr. Hugh Stewart, of Flint, offered the following amendment to Section 2, Article VII, of the Constitution: "That the Secretary-Editor shall be elected by the House of Delegates at each annual meeting." This amendment under the rules was to lie over until the next annual session.

The floor was extended to Mr. T. T. Allen of the Curtis Publishing Company, who asked for the approval of the Michigan State Medical Society upon a proposition whereby the Curtis Publishing Company would sell space to national advertisers for the presentation to the public of the work of scientific medicine, these advertisements to be signed or unsigned, as the Curtis Publishing Company is able to effect. On motion of Dr. H. Cook of Genesee, seconded and carried, the matter was referred to the Business Committee.

(The meeting adjourned at 3:10 p. m.)

COMMITTEE REPORTS

CIVIC AND INDUSTRIAL RELATIONS

The House of Delegates, Michigan State Medical Society:

Your Committee on Civic and Industrial Relations begs leave to submit the following report:

We have had no communications from any member of the Society during the year, and therefore have no requests for action on any subject. We feel that there are matters that our members should submit to such a Committee and therefore urge that more use be made of this body in the future.

Your Committee has arrived at some conclusions in regard to matters that we feel will interest the Society as a whole and therefore submit the following as of enough importance to warrant action by the House of Delegates.

The position taken by last years committee in regard to Public Health work should again be brought to the attention of our Society. We urge a continuation of the educational work along preventive medicine lines, but as strongly urge that the State Officials limit their activities to the educational side and not encroach on the rights of the practicing doctor.

The mental clinics, started by state hospital staff members, have been of great value to the doctors at large, and we hope for a continuation of these clinics. They are a great aid in the work of the probate courts of the counties where held and relieve medical men in the branch of their work in which many of us have little experience.

As the busy doctor cannot keep pace with the new laws and regulations as passed by the national and state authorities, we recommend that the State Board of Health or other body, have all the present laws codified, together with all regulations pertaining to the practice of medicine. This would include all information in reference to contagious diseases and their quarantine and fumigation requirements. It should contain definite statements about the care of indigent patients and the requirements for their hospitalization.

We have had brought to our attention several instances where we feel the State Board of Registration have granted licenses to men not qualified in an educational way, to engage in practice. We do not say that these licenses were not granted in true legal form, and do not wish to be misconstrued, as we are not criticising the Board of Registration. We think the law should be modified so that some specific cases can be better handled.

Your Committee is of the belief that some definite method should be determined on, for the prosecution of illegal practitioners and fakers. At present it is a hard matter in some counties to get any action, and we think that if all such matters were handled through the State Board of Registration in conjunction with the local prosecutor's office, we would have more and better action. Our idea is to have the case submitted to the Board and have them request action from the prosecutor.

Definite standards as to the size of physicians sign boards should be adopted by the House of Delegates. We realize that such a measure would not affect physicians who are not members of the Society, but the majority of the non-members would fall in line. We bring this matter to your attention because there are reports of signs as large as three by four feet, which carry much information as to specialities, methods of treatment, etc., which we believe is in direct violation of our Code of Ethics.

During the past year I have been in correspondence with some of the companies handling workingmen's compensation insurance to determine the feasibility of adopting a standard for the reports of such cases, with a definite plan for all companies. This would simplify the work of the doctors who do work for various companies.

At present each one has a different system of reports, auditing, etc., and it keeps the doctor busy in a clerical way to handle all that is asked for in this work.

I have concluded from the responses I have had, that it would be impractical for the insurance companies to change their methods and we could not hope for any standard form for them. Some of the larger companies have such an intricate system and a large field force that the smaller companies could not carry on their work in like manner.

I see no reason why we could not adopt a system of our own, simple, yet comprehensive, that would embody everything required by all the various companies. Carrying out this method in duplicate, we could retain one copy for filing and submit the other to the insurance company. This would obviate much correspondence, as they could fill out their own reports from the statements as presented by the doctor in charge. They would have all the information desired and in such manner as we wish to present it.

At present we are subject to their orders on these matters. Why not let them follow our system instead. Representatives of some of the companies, to whom I have broached this plan, say it could be worked out and they further stated it might simplify matters for them.

In conjunction with this, your committee feels that some action should be taken toward the establishment of an approximate fee bill for this class of work.

Also that a Medical Referee be appointed in each county, to act with the Department of Labor and Industry, when called upon, in the hearing of workingmen's compensation cases.

It has been suggested by one of the committee that the matter of county health officers be given

some attention by the House. In some townships, where there are not resident physicians, laymen are appointed to health officer positions, and the work is not carried on in a satisfactory manner. In order to protect public health we feel such action is warranted.

Theo. F. Heavenrich,
Colin D. Monroe,
H. S. Collisi,
R. L. Clark,
H. M. Joy,
F. G. Swartz,
R. H. Nichols,
W. Den Bleyker,
H. A. Dibble.

PUBLIC HEALTH

When new Constitution and By Laws to govern the Michigan State Medical Society were adopted at our annual meeting held in Mt. Clemens one year ago no provision was made in listing committees for a Committee on Public Health. If it is the wish of the House of Delegates that this Committee be continued our By Laws should be so amended. If, however, it is intended that the duties formerly assumed by this committee, should be taken over by the joint Committee on Public Health Education; there is no necessity for again appointing a Committee on Public Health.

During the past year no matters have been referred to your Committee on Public Health. It is therefore to be assumed that the most amicable relations have existed between the officers of our State Society and the State Commissioner of Health. This is as it should be. The best results in Public Health work can be achieved only when such amicable relations exist.

The work of state and local health organizations should be principally educational and preventive. The members of the medical profession have always been ready to co-operate with official or volunteer health organizations in works of charity where charity is due.

In the care of the widow and orphan without means, or where the head of an indigent family is disabled, relief work by the true physician is not a charity but is a pleasant duty. Where, however, an able bodied man applies for charity—medical or otherwise—economic conditions in his home should be investigated to ascertain whether he is receiving a living wage and whether the official or volunteer health organization or individual, that renders him free medical service, is rendering a charity not to him but to his employer.

W. J. O'Reilly,
R. C. Mahaney,
W. J. Kay,
Frank A. Kelly,
Committee on Public Health.

MEDICAL EDUCATION

The Committee on Medical Education of the Michigan State Medical Society in presenting this brief report begs to bring to the attention of the Society the fact that in the face of the general social upheaval which is taking place all over the world the medical schools, notably those of the United States, have, so far, succeeded in keeping their feet on the ground and working toward the development of the medical sciences along sane and rational lines. Nowhere has this fortunate condition been more evident than in the state of Michigan, where the schools, acting in harmonious co-operation, are striving not only to add to the sum of medical knowledge, but also to produce practitioners of medicine who have adequate cultural and scientific attainment and who are imbued with the spirit of service and self-sacrifice which every man must possess if he is to assume and hold the honorable and worthy postion to which his membership in the medical profession should entitle him.

In working along these lines three large problems are encountered, notably those of teaching and research facilities, including the upbuilding of an adequate staff of trained and indefatigable instructors and investigators. Thanks to the progressive and liberal policies of the citizens of Michigan, funds in reasonable amount for the establishment of this machinery have been available so that in the near future the medical schools will be adequately housed and provided with both physical equipment and personnel to enable them to hold their legitimate positions in the world of medical education. Much, however, is needed in the way of additional state and municipal support and personal endowment to enable these schools to entirely meet in the best manner their opportunities for public service. It is, of course, hoped and expected that the necessary funds will be available as the needs of the institutions in question develop.

The second of the great problems of medical education lies in the selection of a student body adequately trained and personally well adapted for the study of medicine. It is probable that in no other calling does personal fitness play so large a part, both in the collegiate and after-graduation career of men involved. The officers of the medical schools are each year confronted by the sad spectacle of many men who have been able to do the work of the premedical collegiate curriculum with relative ease, but who find themselves entirely incapable of meeting the grueling hardships of modern training in the medical sciences. Just how this problem must ultimately be settled is very hard to say. Whether additional premedical requirements will be of any particular value remains an unsettled question. A careful checkup seems to show that those students who have been able to complete courses in the arts and sciences leading to at least a bachelor's degree before entering medical school do, as a result of their greater academic experience, acquit themselves better than do those who enter after the completion of the standard two-year literary college requirement. On the other hand, there are undoubtedly many of these two-year men who, through personal fitness, are quite able to handle the medical curriculum and be graduated with credit to themselves and their colleges. It may be doubted whether a man's fitness for the study of medicine can be determined excepting by the "trial and error" method applied after his matriculation, the criterion seeming to be that if the study of medicine resolves itself into drudgery in the course of the first year or two, the student would best withdraw and seek some occupation which will afford him a better chance of happiness. Every effort is being made to bring about such correlation of clinical and preclinical work as shall render the medical course as attractive as may be, to the student, and it is believed that through this correlaton some who would otherwise be unable to succeed are considerably helped. The question must always lie before every group of teachers of the medical sciences as to whether the graduation of "John Jones" will be for the best interest, first, of the public, and, second, of "John" himself.

The third great question confronting medical

faculties lies in the graduation of men of such ethical ideals that they will always voluntarily elect to walk in the light, rather than in the shadowy places of the medical profession. "With malice toward none, with chairty for all" seems to express the code of ethics of medicine about as well as any words that can be chosen. Can and should this ethical development be left solely or in very great measure to the teachers in the medical schools? Will these teachers be able to exert sufficient influence over the young men and women who come under their care to develop in them to the highest degree the ideals which they should hold? On this point the Committee begs to express a doubt. Most of the young people who undertake the study of medicine are the sons, daughters, or at least the proteges of men already more or less prominent in the medical world and it is certain that after graduation most of the younger doctors associate themselves for a time with the stronger and more prominent men in the communities which they elect to serve. The Committee must wonder to what extent these students and young practitioners are influenced to walk in ethical paths by the examples set them by the doctors who have first instilled in them the desire to study medicine and later have become their protectors, guides and counsellors in the medical world. Does not a very large part of medical education rest in the hands of the practitioners of medicine and must it not very properly rest in their hands through time to come? It seems to your Committee on Medical Education that all members of the Michigan State Medical Society are, of necessity, teachers of medicine and notably of medical ethics—in a way extramural members of the formal faculties of medicine in the state. Without the co-operation, support and guidance of these men, the medical schools must ultimately fall short of the destiny to which they may otherwise aspire.

W. H. MacCrakin,
Andrew P. Biddle,
Hugh Cabot,
Chairman.

The second session of the House of Delegates was called to order by the Speaker, Dr. J. E. King, in the Occidental Hotel at 7:25 p. m., Tuesday evening, September 8.

The Secretary announced that he held a signed roll call of thirty-two delegates, and moved that it constitute the roll call of the second session. The motion was seconded and carried.

Dr. J. B. Jackson, of Kalamazoo, Chairman of the Council, presented the following recommendations from the Council to the House: "That the House of Delegates authorized a committee of nursing education composed of five members; that this committee shall invite co-operation of similar committees from the State Hospital Association and the State Nurses Association for the purpose of making a careful review of existing conditions and of formulating a policy which will aid in the solving of the problem of the education of the efficient nurse; further, that the committee shall render the report to the next annual session, and if in the interim the need presents, shall seek further instruction or authority from the Council as provided in the By-Laws."

Upon motion of Dr. D. E. Welsh, of Grand Rapids, duly seconded and carried, these recommendations were adopted.

The Nominating Committee asked for enlightenment in naming alternates for the American Medical Association meeting. This precipitated a long discussion, after which Dr. L. J. Hirschman, of Detroit, moved that the House elect in addition to the five delegates, five alternates at large, to be designated numerically first, second, third, fourth and fifth, and that these be named by the Nominating Committee. This motion was seconded and carried.

Dr. J. D. Brook, of Grandville, asked for an interpretation of Article V, Section 1, Article VII, Section 2, Article VIII, Section 3, of the new Constitution. It was moved by Dr. A. W. Hornbogen, of Marquette, seconded and carried, that the Speaker appoint a committee of five to study the newly adopted Constitution and "iron out all the wrinkles."

The meeting adjourned at 8 o'clock.

The third session of the House of Delegates was called to order by the Speaker, Dr. J. E. King, in the Occidental Hotel at 4 p. m., Wednesday, September 9, 1925.

Dr. J. H. Charters, of Detroit, Chairman of the Credentials Committee, presented the official roll of the members of the House, which, upon motion of Dr. Charters, supported by several, was adopted as the roll of the House.

On motion of Dr. A. W. Hornbogen, of Marquette, supported by several, the signed roll in the hands of the Secretary was accepted as the roll call for the Wednesday afternoon session.

Dr. Harry M. Malejan, of Wayne, Chairman of the Business Committee, submitted the following report:

September 8, 1925,
Muskegon, Mich.

To the House of Delegates of M.S.M.S.

Gentlemen:

We, your Business Committee, respectfully submit the following recommendations gathered from the Councillor's report, especially emphasizing those in regard to the reduction of federal income tax on physicians' income and abolishing fees for Harrison Narcotic Law.

We further recommend the adoption of resolution in regard to Hygeia Magazine. Also uniform blanks for industrial and insurance claims.

We recommend the acceptance of the report of the Michigan delegates to the A.M.A. We commend their assiduous labor in furtherance of scientific medicine.

We recommend the following physicians to be honorary members to the M.S.M.S.:

Dr. C. B. Burr, Dr. Vander Lan, of Muskegon; Dr. Vander Veen, of Grand Haven.

We recommend the official emblem of the A.M.A. for automobiles for those who desire to use it.

It is also recommended that the chair refer to the Legislative Committee the matter of discounting the fees for reporting T. B., and obstetrical cases.

We commend the report of the Civic and Industrial Committee as a whole. Also favorably emphasize the report of the Committee of Public Health.

Herewith are attached the reports of the Council and the reports of the various committees:

Respectfully submitted,

Harry M. Malejan,
Chas. F. Kuhn,
N. Earle Chapman,
L. J. Hirshman.

Business Committee of M.S.M.S.

REPORT OF DELEGATES TO THE A.M.A.

The House of Delegates of the A.M.A. met at the Traymore Hotel, Atlantic City, May 25 to 29, 1925.

As the proceedings of this Legislative Body have been printed and are a matter of record, it is my purpose to call your attention only to certain high spots which might not be apparent to one not sitting as a delegate.

In giving his Speaker's address, Dr. F. C. Warnshuis, of Michigan, took occasion to call to the attention of the delegates many of the things accomplished by the A.M.A. in the past year and to stress such points as seemed to him to require the attention of the House of Delegates. He recommended among other things:

"First, that the Board of Trustees be allowed to elect the Secretary of the A.M.A.

"Second, that resolutions dealing with matters of policy and opinion should, so far as possible, be published in the Bulletin and submitted to the several delegates thirty days before each annual session in order that they might be given proper consideration.

"Third, that the A.M.A. delegates being the representatives of their several State Societies should not consider their duties fully discharged by four or five days' attendance at the A.M.A. meeting, but should attend state, district and county meetings and pass on to those they represent, the knowledge and inspiration they have obtained as well as to relate their own activities.

"Fourth, that as proper, truthful education of laity regarding the fundamental facts of modern medicine is the one great thing needed to successfully combat cults, isms, etc., it is strongly urged that medical publicity be given the active support of the medical profession."

The recommendations made in the speaker's address were for the most part well received, and so far as requiring Committee and House Delegates action, met with affirmative response in practically all instances except that the House of Delegates decided to retain the annual selection of the Secretary instead of delegating it to the Board of Trustees.

Very full and interesting reports were received from all standing and special committees, showing the A.M.A. to be in the best position ever occupied by the organization.

The reapportionment under the change in By-Laws gives Michigan five instead of four A.M.A. delegates.

The name of Dr. Oscar Dowling, of Shreveport, Louisiana, was dropped from the Board of Trustees of the A.M.A. This seems to have been the result of his failure to dis-associate himself from the Hygiene Reference Board of the Life Extension Institute of New York City.

It is the recommendation of your delegates that each and every member of the Michigan State Medical Society acquaint himself with the names of many of the so-called prominent men of our profession who are listed in the Publications of the Life Institute as connected with this Commercial Organization which appears to be meeting with considerable success in prostituting the medical profession to further their own financial ends. By neglecting the field of Periodic Health Examinations we have invited the condition as it now exists and the only way to redeem the situation is to use every effort to educate the laity in this important matter. They will respond if properly enlightened.

Much criticism was expressed and suitable resolutions adopted concerning the present policy of the federal government in giving medical aid to world war veterans only if they complied with certain regulations which are not only antagonistic to the best interests of the patient, but are unethical to the medical profession.

No one sitting in the House of Delegates could help being inspired by the evident desire of each and every representative to do the thing that was best for the medical profession at large as well as to safeguard the interests of the public.

Your delegates were faithful in attendance upon all meetings and while there was no need of any outstanding legislation so far as Michigan was concerned, yet we had no trouble or opposition in the election of Dr. Fred C. Warnshuis to succeed himself as speaker of the House of Delegates next year.

Respectfully submitted, September 8, 1925,

A. W. Hornbogen, Marquette,
George Frothingham, Detroit,
J. D. Brook, Grandville,
E. S. Gorsline, Battle Creek.

REPORT OF THE COUNCIL

At the last annual meeting, the House of Delegates adopted a new Constitution and new By-Laws. One of the changes included in this action was the raising of the annual dues to ten dollars a year. This action was taken by the House of Delegates on the advice of your Council. At that time there was outlined a proposed program which would be made possible by this increase in dues. This program proposed: (1) increase the size and scope of The Journal; (2) assist County Societies in arranging programs; (3) broaden the present plan of Public Health Education, (4) employ a full-time Executive Secretary; (5) conduct post-graduate councilor district conferences; (6) conserve legitimate interests. At this time it is appropriate that we see how well this program has been carried out by your officers.

In the first place, your Council wishes to report that there has been no loss in membership. At the present time, our membership is larger than ever in our history, with a paid membership of 2,860 for 1925.

Immediately following our last annual meeting, the Council created an executive committee from its members. This committee consists of the Chair-

man of the Council, the Chairman of each of the three Standing Committees of the Council, and our Secretary-Editor. While the problem of formulating our plans and activities has been delegated to the Secretary-Editor, the Executive Committee has had a meeting monthly to review and approve his work.

"Almost the first action of this committee was the choice of an Executive Field Secretary. In November, Mr. Harvey George Smith was appointed to this office. Since this time, he has devoted himself to the carrying on of the field work of our Society. This work has been that of assisting County Societies, arranging details for post-graduate district conference, assisting our Legislative Committee and stimulating our general organization activities. At this time I take great pleasure in reporting that in the opinion of your Council, Mr. Smith has shown great ability and zeal in this work and has in every way justified our choice of him for this position.

The Journal has been somewhat increased in size during the past year and has continued to be the open forum for our Society. There has been added a department conducted by our State Department of Health, and another conducted by our Field Secretary. Other ways of increasing the value of our Journal will undoubtedly be found as more funds are available for this purpose.

Our Field Secretary has been of help to many of our component Societies in arranging programs and increasing interest in Society work. As he becomes more familiar with the details of this phase of our work, we believe that he will become more and more valuable in this respect.

The Committee on Public Education has functioned faithfully during the past year and each year is increasing the value of the work. Three meetings have been held during the year. Reports of the transactions of this committee have been published in The Journal. The last annual report was published in The Journal of last November The Council has been able, by the increased income, to properly finance the carrying out of the program of this committee.

The program of post-graduate conferences that has been conducted since our last meeting is familiar to most of you. Sixteen such conferences have been held and the interest in and appreciation of these conferences has been very gratifying. In our opinion, this is the greatest achievement of our Society in past years. The elevation of standards of medical practice is an ideal to be set before us. We believe that these conferences are bringing to many of our members the latest and best medical knowledge and practice. In this connection, the Council wishes to acknowledge our appreciation of the men who have given so freely of their time and knowledge to make these conferences a success. None of the men who have apdpeared on these programs have asked any compensation for their services and in a few cases they have even paid their own traveling expenses.

The mid year meeting of the Council has in the past been held in January. This past year a meeting was held in December to make plans for the coming session of the State Legislature in January. We are glad to report that no adverse legislative enactments resulted from the past session of the legislature. Our Legislative Committee was very active and their work can not be too highly commended. Our new Field Secretary also rendered very efficient services in this connection. The past session of the Legislature again demonstrated the great importance of having members of our own profession as members of the Legislature. Those men who thus represented us rendered invaluable assistance in our legislative program.

Whereas, The difficulty that obstructs greater conservation of human lives and limits man's longevity is the lack of instruction and the absence of greater receipt of reliable scientific information by the people in regard to the laws of health and prevention of disease, and

WHEREAS, It is the unquestioned duty of the profession to employ every honorable and dignified means to increase the dissemination of reliable scientific medical knowledge and instruction, and

WHEREAS, An important and effective means is available in the publication, Hygeia, edited and distributed by our parent national body, the A.M.A.; therefore, be it

RESOLVED, By the Michigan State Medical Society,

First, that we commend to and urge upon our members, unstinted support to this educational magazine by means of

(a) Personal subscription and maintenance of each copy upon their reception room table.
(b) Calling the attention of their patrons to the value of this magazine.
(c) Causing steps to be taken so that local reading rooms and clubs will place Hygeia upon their reading tables.
(e) Interesting school teachers and the clergy so that they may aid in creating a wider circulation of Hygeia.

Second, that when in our power to so do, we will cause the attention of local newspaper editors to be directed to each issue with the request that articles be reprinted and thereby causing greater dissemination of reliable information to the public. Be it further

RESOLVED, That we commend the officers of A.M.A. in their labors to supply such a publication as Hygeia and approve the monetary investment that is being made for that purpose.

WHEREAS, There is an annoying demand on the part of insurance companies and employers of labor for reports as to physical conditions of injured or sick employes, as well as requests for the reporting upon much that is irrelevant and of little material value in determining compensable rewards,

WHEREAS, These blanks and reports make uncalled demands upon the time and knowledge of the attending physician or surgeon; therefore, be it

RESOLVED, That the president of our Society be directed to appoint a special committee of five who shall investigate this situation, compile their findings and formulate a standard report blank and file their report with the Council for approval by January 15, 1926. Be it further

RESOLVED, That having approved the committee's report, the Council shall then refer the same to the Committee on Civic and Industrial Relations, who are hereby instructed to employ necessary means to secure the acceptance of this report blank by insurance companies and compensation boards, and that our members decline to certify upon any other blank for such routine reports.

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(1) Honorary Members:

Dr. C. B. Burr,
Dr. Vander Law, of Muskegon.
Dr. Vander Veen of Grand Haven.

(2) A. M. A. Delegate:
by the reapportionment, our Society is entitled to 5th delegate to A.M.A.

(3) That House of Delegates adopt as official emblem for their automobiles the emblem of the A.M.A.

(4) That House of Delegates discuss the newly adopted policy of discontinuance of the payment of fees for the reporting of tuberculosis and births.

Membership standing as of January 1, 1925:
Paid membership, 2,860.

September 1, 1925:
Paid membership, 2,880.

Your Council wishes to call the attention of the House of Delegates to the necessity of taking some action in regard to federal tax reduction on physicians' incomes. In the August Journal, there were published two letters from Dr. W. C. Woodward, Executive Secretary of the Bureau of Legal Medicine and Legislation of the A.M.A. In their letters, definite requests are made for the filing of protests on the present method of computing the income tax and on the continuation of the Narcotic tax. He requests that these protests be filed with the President, the Secretary of the Treasury and with Hon. Wm. R. Green, Chairman of the Committee on Ways and Means of the House of Representatives. He also requests that these matters be taken up with our local representatives and our senators. The Council would recommend that the House of Delegates pass suitable resolutions to conform with these requests of Dr. Woodward.

At the January meeting of the Council, it was voted that the Council should recommend to the House of Delegates the election as honorary members of Dr. C. B. Burr of Flint, and Dr. Joseph McNeese of Morley.

The Council also desires to call the attention of the House of Delegates to the very efficient work of our Medico-Legal Committee under the chairmanship of Dr. Frank B. Tibbals. The last annual report of this committee was published in the February number of The Journal. The work of this committee has come to be one of the most important functions of our State Society.

Upon motion of Dr. J. D. Brook, of Grandville, supported by Dr. Chas. F. Kuhn, of Detroit, the report of the Business Committee was adopted by the House.

Upon motion of Dr. W. J. Wilson, of Wayne, seconded by several, the Secretary was instructed to cast the ballot of the House for the election of the honorary members recommended by the Business Committee. The Speaker then appointed the following committee to bring in recommendations for revision of the Constitution and By-Laws:

J. D. Brook, Grandville; T. Heavenrich, Port Huron; Walter J. Wilson, Detroit; Dr. Cober, Detroit; Dr. Collins, Detroit.

The Nominating Committee presented the following report:

For Councilor for the First District—J. Hamilton Charters, Detroit.

Councilor for the Second District—B. H. Green, Hillsdale.

Councilor for the Third District—R. C. Stone, Battle Creek.

First Vice-President—R. J. Busard, Muskegon.

Second Vice President—H. M. Malejan, Detroit.

Third Vice-President—A. L. Callery, Port Huron.

Fourth Vice-President—E. J. Evans, Ontonagon.

Delegate to the American Medical Association—Carl F. Moll, Flint.

Alternate Delegate—L. J. Hirschman, Detroit.

To fill unexpired term of Alternate Carl F. Moll—N. Earle Chapman, Cheboygan.

Owing to the misunderstanding as to senority of alternate delegates, your committee recommends that such seniority be established by the ballot of the House of Delegates.

Respectfully submitted,

T. Heavenrich,
J. D. Brook,
H. Cook,
A. W. Hornbogen,
J. L. Chester.

Upon motions duly made and supported for each individual nominee, the Secretary was instructed to cast the ballot of the House of Delegates for their unanimous election. The Secretary did so cast, an dthe Speaker declared the election of the nominees presented by the Nominating Committee.

On motion of Dr. L. J. Crum of Kalamazoo, seconded and carried, the following alternates were elected:

L. J. Hirschman, N. E. Chapman, Hugh Stewart, H. A. Huse, C. S. Gorsline.

For Speaker of the House, Dr. A. W. Hornbogen, of Marquette, nominated Dr. Joseph E. King, of Detroit. The nomination was seconded by several delegates. Nominations were closed and the unanimous ballot of the House was cast for Dr. King.

For Vice-Speaker, Dr. C. F. Moll, of Genesee, nominated Dr. C. C. Slemens, who was elected by unanimous ballot of the House.

Dr. J. D. Brook, of Grandville, the chairman of the committee to revise the Constitution, presented the following recommendations: Article V, House of Delegates, Section 1, shall be changed to read, "The legislative powers of this Society shall reside in the House of Delegates. The House of Delegates shall transact all the business of the Society not otherwise specifically provided for in the Constitution and By-Laws, and shall elect the general officers who shall hold office for one year.

Article VII, Officers, Section 2. The President and Vice-President shall be elected for a term of one year.

Article VII, Officers, Section 4, Nominations for President shall be made from the

floor at the first general meeting. He shall be elected by ballot of the majority present. The ballot boxes shall be kept open during meeting hours between the first and second general session.

By-Laws, Chapter 3. House of Delegates, Section 6, Article H. It shall elect four Vice-Presidents, Councilors, speakers and Vice-Speaker.

Chapter 7. Duties of Officers, Section 3 The Treasurer shall be the custodian of all the funds and securities of the Society. He shall be elected by the House of Delegates and accountable through the House of Delegates to the Society.

On motion of Dr. J. D. Brook, of Grandville, seconded and carried, the report was adopted.

Upon motion of Dr. Harry Welton of Wayne, the meeting adjourned sine die at 5:20.

F. C. Warnshuis, Secretary.

MEMBERS REGISTERED

Barry County

C. P. Lathrop, Hastings.
E. T. Morris, Nashville.
B. C. Swift, Middleville.
A. W. Woodburne, Hastings.

Bay County

Robert H. Criswell, Bay City.
John H. McEwan, BayCity.

Berrien County

Robert Henderson, Niles.
K. T. Knode, Niles.
Hattie A. Schwendener, St. Joseph.
E. W. Tonkin, Niles.
Andrew L. West, St. Joseph.

Branch County

E. E. Hancock, Union City.
W. W. Williams, Coldwater.

Calhoun County

S. E. Barnhart, Battle Creek.
J. E. Cooper, Battle Creek.
Benton N. Colver, Battle Creek.
E. L. Eggleston, Battle Creek.
C. S. Gorsline, Battle Creek.
George A. Hafford, Albion.
Wilfrid Haughey, Battle Creek.
W. H. Haughey, Battle Creek.
Ben. G. Holton, Battle Creek.
Charles C. Hubly, Battle Creek.
S. Jesperson, Battle Creek.
M. A. Mortenson, Battle Creek.
W. H. Riley, Battle Creek.
Paul Roth, Battle Creek.
Theodore L. Squier, Milwaukee, Wisconsin.
J. J. Holes, Battle Creek.
R. C. Stone, Battle Creek.

Cass County

George F. Green, Dowagiac.
George W. Green, Dowagiac.

Cheboygan County

W. Earle Chapman, Cheboygan.
A. J. McKillop, Wolverine.

Clinton County

Charles T. Foo, St. Johns.
Arthur O. Hart, St. Johns.

Eaton County

F. W. Sassaman, Charlotte.
C. L. D. McLaughlin, Vermontville.
H. J. Prall, Eaton Rapids.
Phil H. Quick, Olivet.
C. B. Wasson, Bellevue.
R. A. Welch, Bellevue.

Emmet County

B. H. Van Leuven, Petoskey.

Genesee

A. C. Blakeley, Flint.
Wm. G. Bird, Flint.
C. P. Clark, Flint.
Henry Cook, Flint.
F. L. Covert, Gaines.
George V. Curry, Flint.
L. R. Himmelberger, Flint.
H. A. Jefferson, Flint.
Don D. Knapp, Flint.
H. D. Knapp, Flint.
Harry W. Knapp, Flint.
Mark S. Knapp, Flint.
J. G. R. Manwaring, Flint.
W. R. Marshall, Flint.
Carl F. Moll, Flint.
H. E. Randall, Flint.
F. A. Roberts, Flint.
Robt. H. Stephenson, Flint.
W. W. Stevenson, Flint.
H. A. Stewart, Flint.
D. L. Treat, Flint.

Grand Traverse-Leelanau County

Frank Holdsworth, Traverse City.
Fred E. Murphy, Cedar.
Fred G. Swartz,, Traverse City.

Gratiot-Isabella Clare County

W. E. Barstow, St. Louis.
M. F. Brondstetter, Mt. Pleasant.
F. J. Graham, Alma.
B. C. Hall, Pompeii.
E. T. Lamb, Alma.
C. T. Pankhurst, North Star.
Chas. D. Pullen, Mt. Pleasant.
R. B. Smith, Alma.

Hillsdale County

T. H. E. Bell, Reading.
Charles T. Bower, Hillsdale.
B. F. Green, Hillsdale.

Houghton County

Robt. B. Harkness, Houghton.
Chas. E. Rowe, Hubble.
W. K. West, Painesdale.
T. P. Wickliffe, Lake Linden.

Ingham County

G. F. Bauch, Lansing.
Earl I. Carr, Lansing.
L. G. Christian, Lansing.
L. H. Darling, Lansing.
B. M. Davey, Lansing.
C. F. De Vries, Lansing.
C. P. Doyle, Lansing.
Fred J. Drolett, Lansing.
Chas. B. Gauss, Lansing.
Roland E. Kalmbach, Lansing.
W. E. McNamara, Lansing.
R. H. Nichols, Leslie.
A. E. Owen, Lansing.
George H. Ramsey, Lansing.
Howard C. Rockwell, Lansing.
Milton Shaw, Lansing.
W. G. Wight, Lansing.
Harold W. Wiley, Lansing.

Ionia-Montcalm County

A. J. Bower, Greenville.
Lewis E. Bracey, Sheridan.
Francis J. Fralick, Greenville.
Joseph Johns, Ionia.
F. A. Johnson, Greenville.
I. S. Lilly, Stanton.
F. M. Marsh, Ionia.
H. M. Maynard, Ionia.
John J. McCann, Ionia.
C. H. Peabody, Lake Odessa.
A. B. Penton, Smyrna.
J. F. Pinkham, Belding.
H. B. Weaver, Greenville.

Jackson County

G. R. Bullen, Jackson.
W. L. Finton, Jackson.
H. H. Frazier, Hanover.
Walter Frazier, Hanover.
P. R. Hungerford, Concord.
E. O. Leahy, Jackson.
S. S. Ludlum, Rives Junction.
E. F. Lewis, Jackson.
Albert R. Parker, Jackson.
G. E. Winter, Jackson.

Kalamazoo-Van Buren-Allegan

F. Elizabeth Barrett, Kalamazoo.
Gabried D. Bos, Fennville.
E. T. Brunson, Ganges.
Geo. H. Caldwell, Kalamazoo.
A. W. Crane, Kalamazoo.
Leo J. Crum, Kalamazoo.
Sherman Gregg, Kalamazoo.
J. E. Maxwell, Decatur.
John B. Jackson, Kalamazoo.
Arthur A. McNabb, Lawrence.
H. A. Rigterink, Kalamazoo.
L. V. Rogers, Galesburg.
B. A. Shepard, Kalamazoo.
John Stewart, Hartford.
R. J. Walker, Saugatuck.
Leo E. Westcott, Hartford.

Kent County

E. B. Andersen, Grand Rapids.
Abel J. Baker, Grand Rapids.
Horace J. Beel, Grand Rapids.
William L. Bettison, Grand Rapids.
J. E. Bolender, Sparta.
Geo. L. Bond, Grand Rapids.
J. D. Brook, Grandville.
James S. Brotherhood, Grand Rapids.
W. M. Burling, Grand Rapids.
A. C. Butterfield, Grand Rapids.
Earle J. Byers, Grand Rapids.
John F. Cardwell, Grand Rapids.
Louis H. Chamberlin, Grand Rapids.
Donald Chandler, Grand Rapids.
H. T. Clay, Grand Rapids.
Edward L. Collins, Grand Rapids.
Harrison S. Collisi, Grand Rapids.
Burton R. Corbus, Grand Rapids.
Charles V. Crane, Grand Rapids.
Fred P. Currier, Grand Rapids.
Ernest W. Dales, Grand Rapids.
David B. Davis, Grand Rapids.
C. De Jong, Grand Rapids.
Willis L. Dixon, Grand Rapids.
W. J. DuBois, Grand Rapids.
G. A. Easton, Grand Rapids.
J. C. Foshee, Grand Rapids.
Orla H. Gilletf, Grand Rapids.
A. G. Graybiel, Caledonia.
George Gundersen, Rockford.
T. W. Hammond, Grand Rapids.
Edith M. Haralson, Byron Center.
Chas. E. Hebard, Grand Rapids.
R. J. Hutchinson, Grand Rapids.
T. C. Irwin, Grand Rapids.
Collins H. Johnston, Grand Rapids.
Clyde F. Karshner, Grand Rapids.
John Kremer, Grand Rapids.
D. B. Lanting, Byron Center.
G. F. Lamb, Grand Rapids.
F. J. Larned, Grand Rapids.
Harry Lieffers, Grand Rapids.
John L. Loomis, Grand Rapids.
W. D. Lyman, Grand Rapids.
G. L. McBride, Grand Rapids.
J. H. McRae, Grand Rapids.
J. P. Marsh, Grand Rapids.
Reuben Maurits, Grand Rapids.
Margaret A. Miller, Grand Rapids.
A. M. Moll, Grand Rapids.
Vernor M. Moore, Grand Rapids.
Eugene N. Nesbitt, Grand Rapids.
Wm. Northrup, Grand Rapids.
Albertus Nyland, Grand Rapids.
Henry J. Pyle, Grand Rapids.
Torrance Reed, Grand Rapids
T. W. Rigterink, Grand Rapids.
Harold C. Robinson, Grand Rapids.
E. W. Sehnoor, Grand Rapids.
A. B. Smith, Grand Rapids.
R. Earl Smith, Grand Rapids.
Carl F. Snapp, Grand Rapids.
George H. Southwick, Grand Rapids.
Ralph H. Spencer, Grand Rapids.
C. R. Straatsma, Grand Rapids.
Edwin B. Strong, Rockford.
G. J. Stuart, Grand Rapids.
Cullen F. Sugg, Grand Rapids.
Archibald B. Thompson, Grand Rapids.
Athol B. Thompson, Grand Rapids.
P. L. Thompson, Grand Rapids.
William R. Torgerson, Grand Rapids.
N. S. Vann, Grand Rapids.
H. E. Veldman, Grand Rapids.
F. A. Votey, Grand Rapids.
D. J. Wallace, Sparta.
F. C. Warnshuis, Grand Rapids.
Rowland F. Webb, Grand Rapids.
G. W. Webster, Grand Rapids.
D. Emmett Welsh, Grand Rapids.
A. V. Wenger, Grand Rapids.
J. B. Whinery, Grand Rapids.
Alden Williams, Grand Rapids.
H. C. Wolfe, Grand Rapids.

Lapeer County

H. M. Best, Lapeer.
D. J. O'Brien, Lapeer.
W. J. Kay, Lapeer.
H. B. Zemmer, Lapeer.

Lenawee County

Chad A. Van Dusen, Blissfield.

Livingston County

Horace P. Mellus, Brighton.

Manistee County

Wm. E. Coats, Kaleva.
H. D. Robinson, Manistee.

Marquette County

A. W. Hornbogen, Marquette.
Isaiah Sicotte, Michigamme.

Mason County

Leo J. Goulet, Ludington.
Clayton M. Spencer, Scottville.

Mecosta County

John L. Burkart, Big Rapids.
W. T. Dodge, Big Rapids.
Glen Griece, Big Rapids.
G. H. Lynch, Big Rapids.

Muskegon County

James H. Barnard, Whitehall.
C. J. Bloom, Muskegon.
J. Bursma, Muskegon.
R. I. Busard, Muskegon.
R. G. Cavanaugh, Muskegon.
Wm. C. Chapin, Muskegon Heights.
Harold F. Closz, Muskegon.
Sol G. Cohan, Muskegon.
C. M. Colegrove, Muskegon.
J. S. Cowin, Muskegon.
Ernest F. D'Alcorn, Muskegon.
J. F. Denslow, Muskegon.
S. J. Drummond, Casnovia.
C. J. Durham, Muskegon.
Lucy N. Eames, Muskegon.
Arthur B. Egan, Musflegon.
C. B. Fleischman, Muskegon.
Enid Fillingham, Muskegon.
Frank W. Garber, Muskegon.
Frank W. Garber, Jr., Muskegon.
Frank W. Hannum, Muskegon.
A. F. Harrington, Muskegon
I. J. Harrington, Muskegon.
G. J. Hartman, Muskegon.
Bernard Heyman, Muskegon.
Roy Herbert Holmes, Muskegon.
Samuel A. Jackson, Muskegon.
Marie Keilin, Muskegon.
E. L. Kniskern, Muskegon.
O. M. LaCore, Muskegon Heights.
V. S. Laurin, Muskegon.
George L. LeFevre, Sr., Muskegon.
Louis LeFevre, Muskegon.
Wm. M. LeFevre, Muskegon.
H. B. Loughery, Muskegon.
James A. Mabbs, Muskegon.
C. B. Mandeville, Muskegon.
Frank B. Marshall, Muskegon.
R. L. Matteo, Muskegon.

R. G. Olson, Muskegon Heights.
Carl Pangerl, Muskegon.
A. B. Poppen, Muskegon.
Lunette I. Powers, Muskegon.
Henry J. Pyle, Muskegon.
Paul A. Quick, Muskegon.
W. C. Reineking, Muskegon.
Robert A. Risk, Muskegon.
Walter C. Swartout, Muskegon.
A. A. Smith, Muskegon.
Chas. A. Teifer, Muskegon.
S. W. Thieme, Ravenna.
Eugene S. Thornton, Muskegon.
Pitt S. Wilson, Muskegon.

Newaygo County

W. H. Barum, Fremont.
L. J. Geerlings, Fremont.
N. DeHaas, Fremont.
C. A. Mateer, Fremont.
Arthur C. Tompsett, Hesperia.

Oceana County

J. D. Buskirk, Shelby.
Clinton Day, Hart.
W. L. Griffin, Shelby.
John H. Nicholson, Hart.
A. H. Hayton, Shelby.

Ontonagon County

E. J. Evans, Ontonagon.

Ottawa County

C. J. Addison, Grand Haven.
R. O. Allen, Conklin.
Arthur J. Brower, Holland.
A. G. Burwell, Spring Lake.
M. Coburn, Coopersville.
Stuart L. De Witt, Grand Haven.
C. J. Fisher, Holland.
W. E. Kools, Holland.
A. L. Leenhouts, Holland.
Chas. E. Long, Grand Haven.
R. H. Nichols, Holland.
H. J. Poppen, Holland.
G. H. Rigterink, Hamilton.
A. E Stickley, Coopersville.
Wm. Tappan, Holland.
O. Van Der Velde, Holland.
John N. Wenger, Coopersville.
W. Westrate, Holland.
William G. Winter, Holland.

Saginaw County

James D. Bruce, Saginaw.
F. J. Cady, Saginaw.
W. F. English, Saginaw.
G. H. Ferguson, Saginaw.
John W. Hutchison, Saginaw.
Ralph S. Jiroch, Saginaw.
Rockwell M. Kempton, Saginaw.
Nelson F. McClinton, Saginaw.
A. R. McKinney, Saginaw.
Frank G. Ostrander, Freeland.
John T. Sample, Saginaw.
Clarence Toshach, Saginaw.
R S. Watson, Saginaw.
Stuart Yntema, Saginaw.

Shiawassee County

J. J. Blue, Owosso.

St. Clair County

A. L. Callery, Port Huron.
Sara T. Chase, Port Huron.
C. C. Clancy, Port Huron.
Robert C. Fraser, Port Huron.
A. J. MacKenzie, Port Huron.
Theo. G. Heavenrich, Port Huron.

St. Joseph County

Fred A. Lampman, White Pigeon.
David M. Kane, Sturgis.
C. G. Miller, Sturgis.

Tri-County

John F. Gruber, Cadillac.
G. D. Miller, Cadillac.
Otto L. Ricker, Cadillac.
W. Joe Smith, Cadillac.

Washtenaw County

S. G. Bush, Chelsea.
Cyrenus G. Darling, Ann Arbor.
John K. De Vries, Ann Aabor.
Theophil Klingman, Ann Arbor.
Lawrence Edward McCaffrey, Ann Arbor.
A. D. Wickett, Ann Arbor.
Frank N. Wilson, Ann Arbor.
John B. Youmans, Washtenaw.

Wayne County

Geo. J. Baker, Detroit.
Theo. Barker, Royal Palm Hotel.
C. H. Belknap, Detroit.
Andrew P. Biddle, Detroit.
Clark D. Brooks, Detroit.
A. S. Brunk, Detroit.
Don M. Campbell, Detroit.
Henry R. Carstens, Detroit.
J. Hamilton Charters, Detroit.
John L. Chester, Detroit.
Arthur N. Chatel, Detroit.
L. E. Clark, Highland Park.
R. L. Clark, Detroit.
A. N. Collins, Detroit.
Guy L. Connor, Detroit.
Ray Connor, Detroit.
C. R. Davis, Detroit.
J. L. De Rosier, Detroit.
Howard P. Doub, Detroit.
Ira G. Downer, Detroit.
George E. Frothingham, Detroit.
H. B. Garner, Detroit.
J. E. Gleason, Detroit.
Wm. A. Hackett, Detroit.
L. W. Haynes, Detroit.
Thos. J. Heldt, Detroit.
Louis J. Hirschman, Detroit.
Alpheus F. Jennings, Detroit.
Ralph K. Johnson, Detroit.
Chas. F. Kuhn, Detroit.
J. Everett King, Detroit.
Frank A. Kelly, Detroit.
Nixon R. Lawhead, Detroit.
Wm. C. Lawrence, Detroit.
H. A. Luce, Detroit.
Harry M. Malejan, Detroit.
James R. Marshall, Detroit.
Grant McDonald, Detroit.
Geo. F. McKean, Detroit.
Angus McLean, Detroit.
Frank R. Menagh, Detroit.
Harold L. Morris, Detroit.
John H. Neary, Detroit.
E. O. Sage, Detroit.
Harry B. Schmidt, Detroit.
W. L. Sherman, Detroit.
R. J. Shute, Windsor, Ontario, Canada.
C. E. Simpson, Detroit.
Frank J. Sladen, Detroit.
Linwood W. Snow, Northville.
Claire L. Straith, Detroit.
Frank Burr Tibbals, Detroit.
J. W. Vaughan, Detroit.
Frank W. Walker, Detroit.
Roger V. Walker, Detroit.
A. B. Wickham, Detroit.
Harold Wilson, Detroit.
Walter J. Wilson, Detroit.
A. H. Whittaker, Detroit.
Geo. H. Wood, Detroit.
L. B. Wood, Detroit.

Guests

Arthur F. Abt, Chicago, Ill.
I. A. Abt, Chicago, Ill.
B. L. Adams, St. Louis, Mo.
Channing W. Barrett, Chicago, Ill.
I. W. Brown, Grand Rapids, Mich.
G. W. Crile, Cleveland, Ohio.
Henry B. de Bey, Chicago, Ill.
Perry G. Goldsmith, Toronto, Canada.
H. S. Gradle, Chicago, Ill.
Henry F. Hemlholz, Rochester, Minn.
D. Hillis, Chicago, Illinois.
N. S. McLeod, Grand Rapids, Mich.
Ralph H. Major, Kansas City, Mo.
McKim Marriott, St. Louis, Mo.
J. H. Maxwell, Ann Arbor.
Roger S. Morris, Cincinnati, Ohio.
Harry L. Pollock, Chicago, Ill.
H. Royers, Gallesburg, Ill.
Lester W. Smith, Indianapolis, Ind.
Clarence L. Starr, Toronto, Canada.
Solomon Strouse, Chicago, Ill.
J. A. Stucky, Lexington, Ky.
Hugh H. Young, Baltimore, Md.

The Journal
OF THE
Michigan State Medical Society
ISSUED MONTHLY UNDER THE DIRECTION OF THE COUNCIL

PUBLICATION COMMITTEE
R. C. Stone, Chairman.....Battle Creek
C. D. Darling.....Ann Arbor
J. D. Bruce.....Saginaw

Editor and Business Manager
FREDERICK C. WARNSHUIS, M. D., D. Sc., F. A. C. S.
Grand Rapids, Michigan

Entered at Grand Rapids, Michigan, Postoffice as second class matter.
Acceptance for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917, authorized August 7, 1918.

All communications relative to exchanges, books for review, manuscripts, news, advertising and subscriptions are to be addressed to F. C. Warnshuis, M. D., 4th Floor Powers Theatre Building, Grand Rapids, Michigan.
The Society does not hold itself responsible for opinions expressed in original papers, discussions, communications, or advertisements.

Subscription Price—$5 per year, in advance

OCTOBER, 1925

Report Malpractice Threats Immediately to Doctor F. B. Tibbals, 1212 Kresge Building, Detroit, Michigan.

Editorials

MEDICAL FOLLIES

The caption of this editorial is the title of a book that has just been issued by the publishers, Boni and Liveright, and of which the author is Dr. Morris Fishbein. Dr. Fishbein needs no introduction to our readers. As editor of The Journal of the American Medical Association he has long since established his literary and scientific acumen. What interests just now is this publication that places in the hands of the lay public some fundamental facts and points out the foibles of all who have sought, by short cut, to treat and cure ailing mankind. The author discusses in this volume the healing cults of osteopathy, homeopathy, chiropractic and mental healing and the physical culture fads and health legislation. Their claims are examined and exposed in the light of true and proven scientific facts. It is done in an informative manner with a commendable lack of bickering and bitterness. The public is given an insight that is free from prejudice.

This book merits the profession's unstinted support and endorsement. Dr. Fishbein has, in writing it, once more demonstrated his desire to be of mutual service to the public and to the doctors. Medical Follies will serve in furthering these interests for it will acquaint the people with the fundamental inconsistencies upon which their tenets are based and will reveal the unscientific claims upon which the thousands of quacks and pseudo-scientists are capitalizing the ills of mankind. There is nothing sensational in the pages of this book still one is impressed with the even tenor of mind that the author manifests as he proceeds to set forth the follies of those who pose as desciples of this or that "pathy". The reader cannot help but be impressed by the authentic statements and appraisal that are imparted.

Books such as this do not of themselves gain a place among the ten best sellers. People do not select them unless their attention has been directly drawn to them. That is the pity and it is for that reason that we are now urging that our members first secure this book, read it, then place it on your reception room table. Having done this do not stop there. Keep it in mind and urge that your preacher, lawyer, merchant, banker, politician and society leader secure it, read it and pass it on to their friends. The educational facts contained in Medical Follies belongs in the minds of the public. The profession must help to place it there. Here is an opportunity to render the public a service and to further expose the foibles and preying practices of all quacks and cults. Your interest and support are thus invited.

PRESIDENT DARLING

As one reviews the list of past Presidents the conclusion presents that our Society has been fortunate in the leaders it has selected. And so again, this year, the Society is indeed headed by an outstanding, honored representative of our profession in the person of Cyrenus G. Darling, M. D., of Ann Arbor, who was unanimously elected President at our Muskegon meeting. Dr. Darling needs no introduction and requires no eulogy. His life and his professional activities have long ago elevated him to a foremost position and firmly placed him at the head of our profession. Our Society will be indeed proud to have so distinguished a President.

To record in detail Dr. Darling's achievements would require the writing of an extended history not only of his personal life, but of the medical department of our University with which he has been so intimately identified. We are not possessed of the tal-

ent or ability to do this justly. Consequently in itemized form we record the following outstanding facts:

Cyrenus Garrit Darling, M. D. F. A. C. S. was born at Bethel, Sullivan County, New York, January 6, 1856, where he resided until he came to Michigan University in 1879.

Education was received in the country school and Monticello Academy at Monticello, N. Y. He taught country school five terms. His medical education began with Dr. Alfred Gillispie of Bethel as preceptor. Latin, Anatomy and Materia Medica were studied for nearly two years and he entered the Medical Department of Michigan in the fall of 1879. Graduated in 1881, entered general practice at once in Ann Arbor and continued until 1889. When Prof. de Nancrede came to Ann Arbor in 1889 he became his assistant.

Cyrenus G. Darling, 1925-26

In 1892, was appointed Demonstrator of Surgery and in 1896 to this title was added that of Lecturer on Minor Surgery. In 1901 his title was Demonstrator of Surgery and Lecturer on G. U. Surgery; in 1905 he became Clinical Professor of Surgery and in 1914 fas made Professor of Surgery. In 1919 he resigned, having served thirty years in the Department of Surgery.

Association with Dental Department. In 1901 was appointed Lecturer on oral Surgery, lecturing on principles of surgery, anesthetics and syphilitic lesions as they may appear in the mouth. In 1905 was made professor of Oral Surgery and acting Dean of the Dental Department. He developed a course of Dental Surgery and succeeded in having a consulting dental surgeon appointed to the hospital. This department has at the time the largest palate and hare-lip clinic in the world. For personal reasons Dr. Darling still holds the title of Professor of Oral Surgery in the Dental Department of the University of Michigan, the school that stands above all other schools of dentistry today and that runs without apparent friction. He was active Dean of the Dental School from 1903 to 1907.

In 1894 was elected Mayor of the City of Ann Arbor and served one term. In 1895 spent the summer in Europe visiting clinics. In 1913, one of the founders of the American College of Surgeons. Chief of Staff of St. Joseph's Mercy Hospital at Ann Arbor since it began in 1912.

Dr. Darling was married in 1884 to Mary Augusta Payne, who died in 1915 and has not remarried. They had three sons. The oldest served in France, but was killed in an auto accident two years ago. Donald B. Darling, dentist, is practicing at Kalamazoo. Cyrenus G. Darling, Jr., graduated from the University of Michigan last June and is now serving as interne in the University of Michigan Hospital.

Such is our leader and to him we may confidently look forward for a year of exceptional Society work and accomplishment. We are possessed of a safe and tried high officer and are proud of his assuming command.

PHYSICAL EXAMINATIONS

Some ten years ago when the campaign for the prevention of tubercuolsis was well under way, Victor C. Vaughan, Jr., and his Committee of this Society on Tuberculosis, set aside August 20th, 1915 as Tuberculosis Day for our state. Official recognition was given to the day by a Governor's Proclamation and doctors agreed to examine the chest of any person presenting themselves at their offices. Newspapers of the state furnished publicity and the public received reliable information as to the so-called White Plague. Many examinations were made on that day and the results were duly tabulated and reported by the Committee.

That was ten years ago, and since that day which marked the first concerted effort to induce people to obtain physical examinations in order that an appraisal might be made as to their physical well-being, there has been no attempt to wage a campaign for periodic physical examinations. True, departments of health, local and state, have conducted health clinics from time to time, but we as a profession have not been very aggressive in our efforts to educate the people as to the value of periodic examinations. Our national, parent organization has undertaken to foster a movement and have prepared special examination record blanks. It has also urged upon State and County Societies, that they become active in instituting such health or physical examinations. The time is at hand to undertake this important task.

Wayne County has commenced to inaugurate such a campaign and is urging, first, that every one of its 1,400 members

submit to a physical examination. Let other county organizations do likewise. May we first have in evidence the statement that each County Society has accomplished the work of conducting a physical examination of every one of its members. That accomplished, we can say to the public that we are practicing what we preach. We urge that our county units get back of this movement and take such steps as will induce people to have an annual physical examination. May we have your suggestions and reports and be advised that you have undertaken this work in your country? A Physical Examination On Your Birthday is a slogan well worth broadcasting for the conservation of health.

COUNCIL COMMITTEES

Chairman Jackson has appointed the following Committees of the Council for the ensuing year:

Publication—Stone, Bruce, McKenzie.

Finance—LeFevre, Green, Baird.

County Societies — Corbus, Randall, Ricker.

Time and Place Annual Meeting—Randall, Charters, VanLewan.

Executive Committee—Jackson, Stone, LeFevre, Corbus, Warnshuis.

The Executive Committee will hold monthly meetings at such time and place as designated by the Chairman.

President Darling has filled the vacancies in office by the appointment of J. D. Bruce as Councilor for the 14th District and Julius Powers of Saginaw as Councilor for the 8th District.

Editorial Comments

We become discouraged at times with the response that is accorded to the urgent requests that members patronize our advertisers. To obtain advertising contracts, to hold them, results must come to the advertiser. To fail to produce results means loss of advertising revenue. The loss of this revenue will and does materially affect The Journal. Our advertisers are all reputable business people. They advertise products that you need in your work and practice. Why purchase from other concerns when our advertisers can serve you equally as well and in many instances better than the one you are dealing with at the present time? We urge again, and intently so, that members confer their business and send their orders to these business firms who are supporting your Journal. Please write and tell them that you saw their ad in The Journal and that you are using their products.

The first horse under the barrier always has the choice of the rail and with any kind of leadership continues to show the way. It may be wrong to try to create a simile between the questions that are vital to us as a profession and a horse race, for victory wont come in one lone heat, but we can by concerted effort raise a cloud of dust that will make the has beens anxious to find out the cause of it . That is why we are eager to have each county unit adopt and carry out the Minimum Program that has been outlined for County Society work this coming fall and winter. Are you, in your county, getting away and taking the rail?

As we go about concerned with our individual practices and its problems we are permitting others to step in and dominate the training of nurses. One need but peruse the outlines of courses in some of our Hospital Training Schools and he will readily perceive that some idealist or theorist has inserted his lever by establishing lecture hours that deal with subjects that are well nigh foreign to nursing education. In medical topics the courses almost meet up to those that are required for medical students. Anatomy, chemistry, bacteriology, physiology, therapeutics, psychology, hygiene and other of the sciences are taught to a degree that is wholly uncalled for and the detail is far beyond the requirements of any nurse. In one locality some 400 hours are devoted in one year to lectures on these subjects. The trend seems to be to impart much that is theory and little that is of practical nursing value. In New York state the requirements are 7 per cent of the teaching to be theoretical and 93 per cent practical. In some of our Michigan Training Schools it is almost the reverse. The result is that the student nurse is being filled with theoretical knowledge and is woefully lacking in practical nursing training. What we need today are nurses who are practical, who know how to make a patient comfortable, who can give a bath, a massage, administer medicines, know when symptoms indicate favorable or unfavorable progress and who can be of some real practical service to the patient. We need less of a dash of talcum powder and a pass or two of a lily white hand that is termed a massage, and more of some nursing care and service such as characterized our nurses training of ten years ago. We as doctors and as members of hospital staffs have been negligent and have neglected to concern ourselves with the type of training and instruction that is being given in our Hospital Training Schools. The universal opinion is that we are not, and neither are our patients securing the nursing service that is efficient and of high standard. This indifference should not be permitted to continue. Investigate what is going on in your hospital's training school—you will be very much surprised. Talk it over with your fellow staff members. Take the necessary steps to correct this theoretical tendency. Do not permit the social theorist to dominate the manner or the methods that shall govern the training of our nurses. This is a subject that may well be taken up at your next staff meeting. We feel certain that you will be surprised when you learn the true state of affairs. Hospital boards should be called to join you in bringing about a change in the curriculums of nurses training schools.

Scarcely a month passes but what there is some worth while medical meeting or clinic being conducted that is national in character. Never before have there been so many opportunities for doctors to attend meetings that will impart much that is of profit to them in their work. If you are prevented from going to one the opportunity exists to take in the next one. There is no ex-

cuse for a man getting in a rut and staying there or being ten years behind the times in his methods and type of practice. We urge, and strongly so, that every doctor arrange to attend at least two of these national meetings during each year. You owe yourself and your patients this brushing-up and mental stimulation. It will also be an agreeable rest and change.

From time to time some member inquires as to why the State Society does not institute plans whereby it may write automobile accident insurance for doctors. This subject has been investigated and thoroughly so. The obstacle that exists lies in the insurance laws of the state. In order to go into such a plan of insurance it would be necessary to organize a company or corporation that is separate from our Society's Articles of Incorporation. A stock capital would have to be subscribed and bonds or funds equaling a certain percentage of the insurance written would have to be deposited with the State Insurance Commissioner. The sum requisite would be in the neighborhood of $100,000. It is because of these legal provisions that an insurance feature of our organizational activity becomes unfeasible. In-as-much as our Medico-Legal plan defends but does not indemnify a member we are not compelled to comply with the state's insurance laws. Were we also to indemnify a member against judgement losses we would be compelled to perfect a separate insurance organization. As it is our plan of defense, and the successful administration of duties of the Medico-Legal Committee by Dr. Tibbals, splendid protection is being given to members.

Medical educational statistics that summarize the progress of the past year are again made available in the August 22nd number of The Journal of the A. M. A. There are two outstanding features in this annual survey. In 1919 the number of students was 12,930 while in 1925 there were 18,200. In 1922 there were 2,529 graduates while in 1925 the number of graduates was 3,974. In 1924 there was one physician to every 640 people while this year there is one physician to 753 people. The problem that presents in this respect is not the number of doctors available to so many hundred people, but rather a problem of distribution of physicians throughout the country. Some cities and localities are overly maned while in other cities and communities there is an under maning. This is not, in some respects, to be judged too adversely, for while it may be true that rural communities may not have a resident physician that community is being supplied from the cities because with automobiles, improved highways and telephone service rural communities very readily obtain medical services. We do question some of these statistical expositions and that basis of questioning rests upon our information regarding Michigan. In this survey Michigan is recorded as having 4,837 doctors. We have several times surveyed the state to ascertain how many eligible doctors were not members of our State Society. We have never been able to find any where near 4,837 doctors in the state; the best we have ever been able to do is 4,000 odd.

Many of our County Societies are resuming their schedule of regular meetings. In doing so we again call to the attention of officers and program committees the minimum program that has been advanced for every county organization. This is a program that can be readily adapted and adopted by every county. It represents a definite amount of organizational work that will be profitable to every member as well as to the community. We urge, with every emphasis, that immediate consideration be given to this plan that is advanced for recording definite achievement. Write us and we will be glad to help you in instituting it for your county.

Now that the Annual Meeting for 1925 has become history we are intensely interested in learning the members' impression regarding that type of program. Will you not please write and impart your opinion and suggestions in order that we may be guided thereby when the time comes to plan the program for our next meeting. We welcome your frank and open criticisms and please let us have them.

We quote the following from Osler's Counsels and Ideals: "The environment of a large city is not essential to the growth of a good clinical physician. Even in a small town a man can, if he has it in him, become well versed in methods of work, and with the assistance of an occasional visit to some medical center he can become an expert diagnostician and reach a position of dignity and worth in the community in which he lives. I wish to plead particularly for the wasted opportunities in the smaller hospitals, and of those of more moderate size. There are in this state a score or more of hospitals with from thirty to fifty beds, offering splendid material for good men on which to build reputations." Osler thus speaks to many of our members in Michigan communities. The Journal would like to receive more reports and papers giving the result of the observations and work of the men who are so well conducting the work in less populated areas.

Sometimes one meditates upon the hum drum and monotony of his daily round of labor and wearies because of much that is repetition. One should not become utterly discouraged because he has to do the same job over and over again. Nature has been staging sunsets and sunrises for some eons—yet we note no deterioration in their quality from year to year. There is a satisfaction in trained endeavor and there is much for contentment in executing each task when the assurance is apparent that we are achieving by repetition continued service to fellow-man. It's the type of work and not the volume that begets personal satisfaction.

The old word "duty" is not heard a great deal of late. It is looked upon largely of stuffy times, now quite out of date. It smacks of preaching and many there are who detest that method of exhortation. It is much more exciting to forget all about duty and go sailing up in the air in pursuit of all sorts of iridescent altruistic rainbows than it is to stand on the ground and "Do the first thing next." Many are like the man writing the treatise on social economy who died of typhoid fever as a result of filthy drains under his own house which he neglected to have cleaned. When you go out of your way and beyond your duty, having first performed it in the service of your own people and your government, and when it costs time, money, labor and perhaps physical suffering to do so, you may aspire to the noble name of patriot. There are not so many. After all the advice that Sherman gave to the young man who came to him and stated that he wanted to know where he could join and fight and was told to "step right in almost any place along the line"—is applicable to many

conditions that confront us today. The vital point is, are you willing to assume the performance of your duty. You can start in almost any place and find abundant opportunity to acquit yourself. Each individual has a greater or less quota of duty that is allotted to him and the manner in which he accepts these responsibilities and discharges them creates the rating whereby his usefulness is appraised. Think it over and endeavor to perceive the rating that is yours and of what value you are according to the degree in which you discharge your duty to your community and to your medical affiliations.

For an hour or two of worth while reading we commend the Detroit Saturday Night. Having once picked it up, you never lay it aside without having derived some profit and mental enhancement. In articles and editorials the point is well and tersely put. Fearless in exposing error and equally just in according honor one need not wonder if he is reading aright. We appreciate this publication and are desirous of passing on to our readers, this invitation to profit likewise.

We are imparting the official minutes of our Annual Meeting, in this issue. On account of the shortness of time between their receipt from the stenographer and the Journal's going to press we are omiting Editorial Comment. This we shall reserve for our November issue. We do urge that every member carefully read these minutes and reports and thus become enlightened as to the work that is being done by his State Society.

Among Our Letters

NOTE.—*This department is the open forum of our members. Your communications and discussions are welcomed. Anonymous communications cannot be accepted, though at times names may be omitted by the Editor. Personalities will not be printed and responsibility for opinions is not assumed. We invite your interest in this department. Address: The Editor, Journal, Michigan State Medical Society, Powers Theatre Bldg., Grand Rapids, Mich.*

Editor of The Journal:

I have your letter of the 25th, forwarded to me from my Washington office, concerning the tax collected from the Medical Profession under the provisions of the Harrison Narcotic Act and the Treasury rulings thereunder.

This is a matter that I have not gone into but I will very gladly inform myself. Might I suggest that all of your arguments and reasons for repealing this tax be submitted in proper form to both the Chairman of the Ways and Means Committee of the House of Representatives and the Chairman of the Finance Committee of the Senate. In the former case Representative Green and in the latter case Senator Smoot is the Chairman. You will make much better progress if the committee reports your matter out favorably. What I state in connection with the above also applies to doctors being permitted to deduct from their annual income, expenses entailed in continuing their education.

Yours very truly,

James Couzens.

Editor of The Journal:

Receipt is acknowledged of your letter of August 25, 1925, addressed to the Secretary of the Treasury, which has been referred to this office for a reply and in which you protest against the special tax of $3.00 a year imposed upon physicians who prescribe and dispense drugs coming within the purview of the Harrison Narcotic Law, as amended, and against certain features of the Federal Income Tax Law.

The protest of the Indiana State Medical Association against the amount of the tax imposed under the provisions of the Harrison Narcotic Law as amended, upon physicians is apparently based upon a misapprehension of the facts. The increase in the tax from $1.00 to $3.00 a year, provided under the Harrison Narcotic Law as amended by the Revenue Act of 1918, was not intended as an emergency measure, as you suggest, but was designed primarily to meet the expenses of the government, and incidentally, along with the other increases made, to provide an equitable apportionment of the liability as between the various classes taxed. Attention is invited to the fact that whereas the tax, irrespective of the character of the activities engaged in, was originally $1.00, the amended statute established five classes, the tax imposed ranging from $24 to $1 a year, based on the nature of their respective activities. The tax of physicians is only one-eighth of that of manufacturers, one-quarter that of wholesale dealers and one-half that of retail dealers. It would appear, therefore, that the tax of $3.00 a year imposed upon physicians is not unreasonable.

The protest of your association against certain features of the Federal Income Tax Law will be made the subject of another communication.

Respectfully,

R. A. Haynes,

Prohibition Commissioner.

Editor of The Journal:

I cannot refrain from saying to you that with the exception of the meetings held during the five years I was Secretary of the State Society some years ago, the one held at Muskegon this week is by all odds the best one the Society ever had.

There is no comparison between it and any of its predecessors and this was the universal testimony of a considerable number of men whose opinion I asked. If the matted was put to a vote of the men who were there, I'll bet there wouldn't be a dozen men who would prefer the old style of meeting unless it might be a few men who are so fond of the sound of their own voices that they probably will sit up in their coffins and talk on the way to the cemetery.

Very sincerely yours,

Collins H. Johnston.

Editor of The Journal:

I want to thank you for your splendid hospitality to me while in Muskegon. I had a wonderful time and was never treated more royally. You are certainly doing a wonderful work with your Society and on all sides I heard loud praises of your management.

Thanking you again and with the kindest regards, I am

Sincerely yours,

Hugh H. Young.

Editor of The Journal:

To the Physicians of Michigan:

Diphtheria can be absolutely prevented by active immunization with toxin-antitoxin.

Do you know of any children over six months of age who have not been offered this protection?

We should be delighted to send you any quantities of toxin-antitoxin and Schick material you desire without charge. Special educational literature is also available for free distribution.

We hope that you will undertake the task of making diphtheria a disease of ancient history in your own practice, and in your community.

Very truly yours,

R. M. Olin, M. D., Commissioner,
Collaborating Epidemologist,
U. S. Public Health Service.

Dr. H. E. Randall,
Flint, Mich.

My Dear Herbert:

Coming out of the mountains yesterday I found your telegram at Cedar City, Utah. For five days we had no close communication with the outside world. The trip was wonderful, but somewhat vicissitudinous in spots. Among other events was an automobile upset and a hanging 'round in the rain at night for three mortal hours. I brought out with me a cough and laryngitis, but in view of the pleasurable side I am reconciled to reduced health for a few days.

There was abundant compensation for whatever adversity we endured. Nothing more exquisitely colorful lies out of doors anywhere in the world, I fully believe, than what we have had the joy of seeing—Zion Canyon and its surroundings, Grand Canyon from the north rim, Kaibab National Forest with its countless deer, Bryce Canyon, Cedar Breaks, Cedar Canyon. Some of these are at present rather difficultly accessible, but visitation of them repays any reasonable exertion. One who can do so should not fail to see these marvelous places. He will exclaim with me, "Mine eyes have seen the glory" and if he has reached my years will content himself with one experience.

It was most kind of you to wire me of the election to honorary membership and I have an abiding sense of gratitude to the Society, particularly to the Council for the distinguished honor. At my time of life and in my present situation of retirement from professional activities a most comfortable feeling is created by such recognition on the part of close medical friends . May success be their's, and may the satisfaction so highly deserved attend them as they follow life's difficult trail.

My heart is full of appreciation of the dear old Michigan State Medical Society. It has always been an inspiration to its members and a benediction to the public.

Will you please send this to Warnshuis and ask him to make place for it in The Journal.

With best regards to your family and yourself, in which Mrs. Burr joins, I am

Faithfully and gratefully yours,

C. B. Burr.

Editor of The Journal:

Receipt is acknowledged of your letter dated August 25, 1925, relative to the deductibility of expenses incurred by physicians in pursuing postgraduate study, which will receive consideration and be answered at the earliest practicable date.

Respectfully,

J. G. Bright,
Deputy Commissioner.
By H. C. Armstrong,
Chief of Section.

Editor of The Journal:

The Secretary of the Medical Society of the District of Columbia has suggested that the National Conference on Street and Highway Safety that is now engaged in drafting uniform laws and regulations for the control of traffic on public thoroughfares be informed of the special needs of physicians with respect to speed limits, parking privileges and right of way. He writes:

"In a questionnaire sent out by the Traffic Committee of the Medical Society of the District of Columbia, out of 52 cities, 27 granted no privileges whatever. The situation in Kansas City, Mo., is quite typical. The physician is arrested when there is a seeming violation of the law, but the judge usually allows him freedom at the time of trial."

It is undoubtedly desirable that the views of the medical profession with respect to this matter be submitted to the Conference named. It is impossible for this bureau to do so, however, for there appears to be no recorded expression of the opinion of the profession generally with respect to them. I am asking, therefore, that our several state associations let me have their views as soon as may be convenient. What is the proper attitude of the medical profession with respect to special favors for physicians under traffic laws and regulations, with respect to speed limits, parking privileges, right of way, and other relative matters that may be of interest?

A copy of this letter is being sent to the President and the Secretary of each state association.

Yours truly,

Wm. C. Woodward, Executive Secretary,
Bureau of Legal Medicine and Legislation.

Editor of The Journal:

Enclosed is a report of clinics held by the Michigan Tuberculosis Association from January 1st to September 1st, 1925, which we thought might be of interest to you.

CHEST CLINICS OF MICHIGAN TUBERCULOSIS ASSOCIATION, JANUARY 1 TO SEPTEMBER 1, 1925

Counties where clinics were held	29
Number of days clinics were held	59

	Adults over 16 yrs.	Children 16 yrs. or less	Total
Number examinations made	1,093	712	1,805
Number positive and suspicions cases tuberculosis	427	223	650
Number tuberculosis cases not positively diagnosed	266	170	436

Counties and towns where clinics were held January 1 to September 1, 1925:

Barry—Hastings.
Branch—Coldwater, Union City, Bronson.
Crawford—Grayling.
Clare—Clare.
Clinton—St. Johns.
Charlevoix—Boyne City.
Eaton —Charlotte.

Emmet—Petoskey.
Gratiot—Alma.
Gladwin—Gladwin.
Lenawee—Adrian.
Midland—Midland.
Macomb—Mount Clemens.
Roscommon—Roscommon, Houghton Lake.
Case—Cassopolis, Dowagiac.
Berrien—Niles, St. Joseph.
Van Buren—Paw Paw.
Luce—Newberry.
Mackinac—St. Ignace.
Chippewa—Sault Ste. Marie.
Emmet—Petoskey.
Gogebic—Ironwood, Bessemer, Wakefield.
Ontonagon—Ontonagon.
Cheboygan—Cheboygan.
Antrim—Bellaire.
Otsego—Gaylord.
Keweenaw—Ahmeek, Mohawk.
Newaygo—Newaygo.
Lake—Baldwin.
Oceana—Shelby.

Very sincerely yours,
Laura Bauch, Director of Clinics.

State News Notes

A Psycopathic Hospital, costing approximately $100,000 is being built at Ann Arbor, Michigan, as a unit of St. Joseph's Mercy Hospital. The Institution will be an attractive fireproof, urban structure, capable of housing fifty patients. It is located on an eighty acre estate one and one-half miles from the city limits.

This hospital will be devoted entirely to the treatment of nervous disorders in both adults and children and will be under the direction of Dr. Theophil Klingman with a Medical Staff representing all branches of clinical medicine and surgery.

Our Society Business and Activities

HARVEY GEORGE SMITH
EXECUTIVE SECRETARY

NOTE: This Department will each month contain a discussion and report of our Society work and planned activities. Your interest and correspondence as to your problems is solicited.

POST-GRADUATE CONFERENCES WIN FAVOR

"When may we have another Post-Graduate Conference in our district?" was asked by doctors from every section of Michigan at the State Meeting. One doctor from the northern peninsula said "the general feeling in the north was that the State Society was giving the doctors value for their money—but up to the holding of the four conferences in the Upper Peninsula there was grave doubt in the minds of most members as to what the State Society intended to do with the increased dues. We are satisfied and are ready to do our best."

The Post-Graduate Conferences have been successful in the past and every effort is being made by the State Officers, the Councilors and officers of County Societies to make them even more successful in the future. It does require complete co-operation of all the units of organized medicine in order that progress may be recorded. While the State Society initiated the Post Graduate Conference plan, it could not have been a success without the spirit of fellowship and friendship that has prevailed. An evident desire to work harmoniously together in the interest of the medical profession has been present at every conference. Sixteen have been held thus far.

Plans are now under way for holding seven Conferences during the months of October and November. Three of the conferences are to be held in districts that have not yet had their first conference; the eighth district at Saginaw, the fifth district at Ionia, and at Ironton, a part of the twelfth district.

The following schedule is proposed:

Saginaw—8th District, October 8th.

Ludington, Manistee or Cadillac—9th District, October 15th.

Ironwood—12th District, October 22nd.

Grand Rapids or Ionia—5th District, October 29th.

Pontiac or Rochester—1st District, November 5th.

Port Huron—7th District, November 12th.

Bay City—10th District, November 19th.

THE MINIMUM PROGRAM IN ACTION

"What are we going to do with our County Medical Society? We don't have meetings like we used to have. We can't get the members to come out. What can we do?" are questions and complaints that are to be heard among the officers of County Medical Societies in various districts of Michigan. The questions come from the large society as well as the one with a membership of only twelve or fifteen. The fact that these questions are heard now and then are signs that we are about ready to take very definite steps in advance. Secre-

taries, officers and even members who are not officers are thinking, they are criticizing, and they are making comparisons with other organizations within their community. Some are looking over their line fences into other counties. Perhaps a better sign than any. The fact is that we are becoming alive to our duties and privileges in our County Societies.

But more definitely what are we going to do about it? What is the State Society going to do? As a result of the criticisms and suggestions and the difficulties that County Societies have met, a very definite effort has been made to solve, in some degree at least, the problems of County Societies. They are the important factors of organized medicine and must be or become active, working, constructive units in the science of medicine.

Therefore in order to definitely determine the problems of County Societies and to help each in developing a constructive program of activity a series of meetings of County Society Officers and Councilors will be held by Councilor Districts. The schedule of the meetings is as follows:

September 22—10th District, Bay City.
September 23—7th District, Saginaw.
September 24—8th District, Port Huron.
September 25—1st District, Detroit.
September 26—6th District, Genesee.
September 29—14th District, Ann Arbor.
September 30—2nd District, Jackson.
October 1—3rd District, Battle Creek.
October 2—4th District, Kalamazoo.
October 22—12th District, Ironwood.

The minimum program which has been carefully worked out will be the basis for all discussions. It has come from the suggestions of officers and formulated into something constructive and of service to County Societies and to the community at large. Further, the program has been presented to the Executive Committee of the Council and in turn to the Council and has received unanimous approval. The plan of meeting the Officers of County Medical Societies for the purpose of discussing the program and finally developing methods which will be suitable for the small society as well as the large was agreed upon. Methods which will build membership societies to fulfill their duties to neighboring smaller societies or to organizations of similar size will result.

Nowhere in the United States has such a plan been contemplated so that Michigan stands at the beginning of a new and indigenous movement. The success of the Minimum program depends upon us and "us" means all the officers and members of both State and County Societies.

READY! GET SET! GO!

The County Medical Societies are now at the beginning of their year of activity. October is the month when vacations have been finished, the weather has become cold and invigorating and we settle down to constructive study or business depending upon our vocation. Schools, colleges and Universities and technical institutions begin their year with a definite established program. Each month the director of the school knows what must be accomplished, how big and wide each step of the year must be. Business in the same way if it is to be successful, measures itself and plans its program a year in advance and many institutions plan many years in advance. If not they become failures.

County Medical Societies, if they are to be useful and service organizations, fulfilling their duties to themselves, their members and their community, must have a plan, and must work the plan. They are the representatives of the science of medicine as the bank is the representative of finance. It has responsibilities.

In order to help County Societies establish a good beginning and make it possible to see through to the end of the year in accomplishment the officers and councilors of all societies are meeting in special conferences for the purpose of establishing programs of activity for each County Medical Society in Michigan. (See article on the Minimum Program).

Each County Medical Society has within its membership the possibilities for a year of results for each member and for the science of medicine in general. Ready! Get Set! Go!

County Society News

BRANCH COUNTY

A meeting of the Branch County Medical Society was held Friday afternoon and evening on August 14 at the Coldwater Country Club. Invited members from the Hillsdale, Lenawee, and St. Joseph Medical Societies were present. Several doctors enjoyer the afternoon on the golf course while the ladies were intertained at cards at the club.

At 7:30 about eighty took their places at the tables and were served to a very nice supper, after

which Mrs. Roy Shattuck gave several whistling solos and Mrs. Louie Legg rendered vocal solos, all of which were very much appreciated.

The ladies then retired to an adjoining room while the doctors listened to an interesting talk, with lantern slide demonstration, on "The Surgical Aspect of Hernia," by Dr. Frank Kelly of Detroit.

B. W. Culver, Secretary.

HOUGHTON COUNTY

The Houghton County Medical Society held its regular monthly meeting at the Scott Hotel, Hancock, Tuesday, September 1st, at 8:30 p. m., with fourteen members present.

After reading the minutes and allowing bills, a communication was read from the Michigan State Medical Society from the Executive Secretary, urging the full attendance at the state meeting at Muskegon next week.

A motion was made and carried that the members and their families submit to a physical examination once a year, the date to be fixed at the next meeting.

The first number on the program was "Preventorium Clinics," by Dr. A. F. Fischer of the Houghton County Anti-Tuberculosis Society, he having charge of this work. A total of 1,861 children were examined at the clinic; 1,589 were abnormal, 272 were normal. Seventy per cent of the abnormal conditions were due to preventable diseases. In the "follow-up" 418 calls have been made, 177 of these have been taken care of—that is the medical and surgical measures carried; 195 balance, to be taken care of. Dr. Fischer gave some very interesting suggestions as to the necessity of this work and results accomplished.

The next number on the program was "Report of the Upper Peninsula Meeting at Escanaba," by Dr. Simon Levine of Houghton. Dr. Levine was the only member present from the Houghton County Medical Society. He reviewed the papers very thoroughly and also gave a resume of his own paper which he had presented at the meeting, the title of this paper being "Resume of One Hundred Sub-total Thyroidectomys."

Dr. W. H. Scott of Houghton next presented a very interesting case of poisoning from shoe dye. Dr. Roberts also sighted a case of shoe dye poisoning which he had seen while on board ship.

The meeting then adjourned to lunch.

Yours very truly,

G. C. Stewart, Secretary.

GOGEBIC COUNTY

A regular meeting of the Gogebic County Medical Society was held at the Grand View Hospital on July 10, 1925. Members present; Crosby, Lyon-Campbell, Stevens, Anderson, Hansen, Harmos and Draper.

The president had received correspondence from the Upper Peninsula Medical Association announcing their meeting to be held about the 13th and 14 of August and requesting as many members as could to attend. The corresponednce was read to the members. Dr. Lieberthal had written the Upper Peninsula asking that a clinic be held in Ironwood but no definite arrangements have been made regarding same.

Paper on "Calcium and Calicum" was read by Dr. Harmos. As there was no other business to come before the meeting, motion was made to adjourn and same carried.

A regular meeting of the Gogebic County Medical Society was held at Grand View hospital, August 14, 1925, at 8:30 p. m. Members present: Crosby, Stebbins, Dorpat, Larson, Pierpont, Ringo, Harmos, and Draper. Minutes of the previous meeting were read and approved. The Annual Meeting was discussed and decision was made that on September 11, 1925, the Annual Banquet be held at the St. James Hotel, and that Dr. Larson make the necessary arrangements for same. Moved by Dr. Stebbins, and seconded by Dr. Larson, that the resolution submitted in regard to vaccination against smallpox and inoculation against diphtheria, be adopted and published.

The Annual Meeting of the Gogebic County Medical Society was held at the St. James Hotel, Ironwood, Friday night, September 11, at 8 p. m. Seventeen members were present. There was an excellent banquet, after which the election of officers for the ensuing year was held, with the following results:

President, Dr. W. J. Pinkerton, Bessemer; Vice-President, Dr. L. Dorpat, Ironwood; Secretary-Treasurer, Dr. M. H. Draper, Ironwood; Delegate to State Convention, Dr. W. E. Tew, Bessemer; Alternate, Dr. B. T. Larson, Ironwood; Credentials, Dr. J. M. Postle, Ironwood.

Following the election of officers, a film entitled "Gastric Motor Phenomena," was exhibited by Dr. Draper. Motion made, seconded and carried that Dr. Draper be given a vote of thanks for the showing of the film. It was decided to have other films in the future.

After the acceptance by a unanimous vote, of Dr. Ringo's invitation for the next meeting to be held at Montreal, the meeting adjourned.

Fraternally yours,

M. J. Lieberthal, Retiring Secretary.

ALPENA COUNTY

The regular meeting of the Alpena County Medical Society was held at the New Alpena House Thursday, August 19th.

Following the dinner a Biography of Dr. William Osler was read by Dr. Arthur Sahs, of Alpena, Michigan.

Thursday, August 27th the Alpena County Medical Society held a joint meeting with the druggists of the city and community. A ball game at 5 o'clock with a fine chicken dinner at the Country Club following , started the meeting. The program following consisted of talks by the various druggists and doctors present regarding ways of co-operating for better service to the sick. As a result of the meeting, the druggists organized a Pharmaceudical Society to co-operate with the Alpena Medical Society. The host on the occasion was Mr. H. M. Lyman, of Saginaw.

C. M. Williams, Secretary.

Among the Books

A Review and Frank Appraisal of Medical Books That are Proffered to the Profession by Publishers.

ALLERGY, ASTHMA, HAY FEVER, URTECARIA—William W. Duke, M. D. C. V. Mosby Co., St. Louis. Price $5.50.

This is an interest awakening discussion and presentation of the subject and allied manifestation reactions. It covers all that is known to date and imparts the effective remedial measures.

PERSONAL AND COMMUNITY HEALTH—C. E. Turner. C. V. Mosby Co., St. Louis, Mo. Price $2.50.

An excellent manual dealing with the health of the individual and of the community. It presents facts based upon scientific principles. It imparts what everyone should know regarding himself, his family and his community health interests.

SYMPTOMS OF VISCERAL DISEASE—F. M. Pottenger, M. D. Third edition. C. V. Mosby Co., St. Louis. Price $6.50.

This excellent text now available in its third and revised edition covers a unique field in clinical medicine. It is an ideal interpretation of visceral disease. The reader will find much for profit in this study and much assistance in perfecting his diagnoses.

TREATMENT OF KIDNEY DISEASES AND HIGH BLOOD PRESSURE—Frederick M. Allen—The Physiatric Institute, Morristown, N. J. Part I.

A simplified discussion of renal-vascular disease with treatment based upon clinical and pathological evidence. An understandable guide in handling this disease that will aid the medical man.

EYE, EAR, NOSE AND THROAT MANUAL FOR NURSES—Roy H. Parkinson, M. D. C. V. Mosby Co., St. Louis, Mo. Price $2.25.

A suitable class room text for nurses and a sensible guide that may well be followed by teachers.

OCULAR THERAPEUTICS—Docotrs Ernst Franke and Clarence Loeb, M. D. C. V. Mosby Co., St. Louis. Price $3.50.

Dr. Loeb has translated this German manual that sets forth technic of treatment.

THE NORMAL DIET—W. D. Sausum, M. D. C. V. Mosby Co., St. Louis, Mo. Price $1.50.

This is a very excellent manual that points out the meaning as well as the errors of diet. It deals with fundamental principles. It will be of excellent aid to every doctor.

THE METHODS IN SURGERY—Glover H. Copler, M. D. C. V. Mosby Co., St. Louis. Price $3.00.

The methods imparted are those employed in the Barnes and Children's Hospital and Washington University Dispensary in St. Louis. It also includes outlines for history taking, pre and post-operative care, routines and diets. With effort being directed toward increased hospital services, staff men will find in this text, much to aid them in establishing suitable regulations.

PREVENTIVE MEDICINE (Second Edition)—By Mark F. Boyd, M. D., C. P. H. Octavo voulme of 429 pages with 135 illustrations. Price $4.00. W. B. Saunders, Philadelphia, Pa.

Here one finds a text that will satisfactorily impart the salient features of preventative medicine. As we as doctors are being looked to more and more for preventative care we require such texts as this to aid us in our efforts. For that reason one will find this to be a timely publication.

A TEXTBOOK OF GENERAL BACTERIOLOGY, (Eighth Edition, Thoroughly Revised)—By Edwin O. Jordan, Ph. D. Price $5.00. W. B. Saunders Company, Philadelphia, Pa.

By its established position, this eighth edition will be welcomed for it is an accepted authority on the subject. It is complete and up to date. It imparts that information of which the active doctor should be possessed.

AMERICAN ILLUSTRATED MEDICAL DICTIONARY—Dorland. Thirteenth edition, revised and enlarged. Edited by W. A. Newman Dorland, M. D. Octavo of 1,344 pages, 338 illustrations, 141 in colors. Over 2,500 new words. lexible binding, $7.00 net; thumb index, $7.50 net. W. B. Sounders Co., Philadelphia and London.

No doctor can be without this accepted standard dictionary, if he wishes to have access to the most authentic medical dictionary. It is closely up to date and includes the latest authentic data. It is concise and clear and practically accurate, leaving little if anything for question or doubt. It is the peer of medical verbiages and undisputed authority. It is the mose useful text we have at our command.

A MANUAL OF GYNECOLOGY—John C. Hirst, M. D., Associate in Obstetrics, University of Pennsylvania. Second Edition, Revised. 12 mo. of 509 pages with 195 illustrations. Cloth $3.50 net. W. B. Saunders Co., Philadelphia and London.

An excellent manual by a recognized teacher with an accurate and concise presentation of the subject. For the busy man it is a satisfactory reference manual.

EMPYEMA—Evarts A. Graham, M. D. Price $2.50. C. V. Mosley Co., St. Louis, Mo.

This is the essay tha won the S. D. Gross prize in surgery. The author has established a reputation for his work in thoracic surgery. Many of the principle fundamentals are imparted as well as a discussion of pathology, symptomatoly and treatment. It is an impressive, informative discussion on empyema that may be considered authoritative.

PHYSICAL CHEMISTRY IN BIOLOGY AND MEDICINE—J. F. McClendon, Ph. D., Professor of Physiologie Chemistry, University of Minnesota Medical School, and Grace Medes, Ph. D., Assistant Professor of Physiologie Chemistry, University of Minnesota Medical School. Octavo of 425 pages, illustrated. Cloth, $4.50 net. W. B. Saunders Co., Philadelphia, Pa.

This is a text for research workers in biology and medicine.

The Journal
OF THE
Michigan State Medical Society
ISSUED MONTHLY UNDER THE DIRECTION OF THE COUNCIL
Vol. XXIV. GRAND RAPIDS, MICH., NOVEMBER, 1925 No. 11

Original Articles

PROBLEMS RELATING TO THE LIVER AND BILIARY DUCTS*

G. W. CRILE, M. D.
CLEVELAND, OHIO

The fact that disordered liver or biliary function depresses the whole organism of the individual has been known from the beginning of medical history and the fact that operative procedures upon the liver or gall-bladder or the bile ducts are a special menace has also been known ever since these parts have been subjected to surgical treatment. The reason why these organs have such a far-reaching influence, however, has not been established, since any operation which is anatomically possible performed upon any other organ or tissue of the body appears to be less menacing both in its immediate and in its later effects than an operation on the liver or any part of the bile tracts. It has consequently been difficult to understand why such general organic deficiency as is produced by exhaustion, exertion, emotion, hemorrhage, hyperthyroidism, cancer, toxemia, general anesthesia, fever, etc., should occasion the whole syndrome of so-called billiousness; and why on the other hand liver deficiency should produce general organic impairment identical with that occasioned by any of the above causes.

It is only within recent years that as a result of laboratory researches we have come to understand that the liver is impaired by any condition which impairs the organism as a whole and inversely the organism as a whole is effected by anything which impairs the liver function. In fact, in the first place, that is, when the organism as a whole is impaired the liver appears to be more sensitive and is more extensively and intensively affected than any other organ except the brain. No comparable effect is seen in any other organ of the body. Moreover, the removal of no other organ except the brain produces so marked an effect upon the organism as the removal of the liver, which is followed by a rapid and steadily progressive failure of funcion on the part of all the organs of the body. This effect is even more marked than that which follows the removal of the brain itself, as, if artificial respiration can be maintained, the rest of the organism can survive for a longer time without the brain than without the liver; after removal of the liver the application of no known method of restoration or of conservation can check the steady decline of the organism to death.

We must conclude therefore, that the liver is an organ which performs a major function in the organism, a function which is at least as essential to life as are the functions of the brain, the heart, or the blood. It follows that any patient whose liver is functionally impaired is to the extent of that impairment unable to sustain an operation upon any part of the body, and the surgical risk is increased if the surgical attack of itself further lessens the activity of the liver. In planning the management of surgical operations, therefore, it becomes of prime importance to know how the function of the liver can best be protected. This pertains to any surgical operation, but it is of particular importance in abdominal operations, and of prime importance in operations upon the liver and gall-bladder and upon the common duct in particular.

As laboratory researches have indicated the fundamental importance of liver function to the organism as a whole, so also laboratory researches have pointed the way to methods of conservation of liver function which can be applied to the patient during, before and after the operation. Of fundamental importance is the application of a principle of biophysics, namely, that a change of one degree in temperature changes the chemical activity of either a physical or biological system, 10 per cent. Therefore, when the temperature of the liver is reduced one degree its chemical activity is reduced 10 per cent. Therefore if in any patient as the result of the exhaustion incident to his disease, as in cancer of the stomach, for example, the chemical activity of the liver has already been reduced to 10 per cent of its normal capacity then if when the abdomen is opened the temperature of the liver is reduced but one degree death will follow inevitably.

In an attempt to discover to what extent the temperature of the liver may fall in abdominal operations, a research was undertaken in the Biophysics Laboratory of the Cleveland Clinic, in which it was found, that when the abdomen was opened, even if the liver itself was not directly exposed, the temperature of the liver fell from one and one-half to three degrees or more, and the impairment of the organism as a whole as a result of this lowered liver temperature was indicated by the fact that the temperature of the brain also fell from one to three degrees. This progressive fall in the temperature of the brain in these cases was identical with that which followed the removal of the liver. Moreover, in animals under ether anesthesia a similar lowering of the temperature of both the liver and the brain was observed. Under nitrous oxid anesthesia on the other hand, the temperature of the brain and of the liver was but little altered.

A lowered blood pressure induced by hemorrhage also lowered the temperature of the brain and of the liver. The lack of ability of the organism as a whole to function in the absence of the liver function was demonstrated by the lack of response of the brain to the injection of adrenalin after the liver was removed. That is, normally the brain responded to the injection of adrenalin by an immediate increase in temperature of from 0.5 to one degree; but after the removal of the liver, the injection of adrenalin produced but little or no change in the temperature of the brain. In view of these findings one can well understand why the mere exposure of the abdominal viscera may cause death in a very sick patient even if no operation has been performed and no general anesthetic has been administered.

We can understand also why the addition of the general anesthetic and of the operative procedure to the exposure of the intestines may cause the death of the patient who may not be so desperately ill.

This fatal sequence of events was illustrated on a large scale during the war by the effects of abdominal operations performed during the winter months in the front line hospitals, where but few soldiers survived an abdominal operation, especially when the operation required a wide exposure of the abdominal viscera. It apparently made no difference how quickly or how skillfully the operation was performed.

Another remarkable fact established by our laboratory research was that the introduction or application of heat within the abdomen which in most of our experiments was accomplished by the introduction of hot water into the stomach, produced not only an immediate rise in the temperature of the liver, but also a rise in the temperature of the brain; and of special significance was the observation that the rise in the temperature of the brain occurred one minute or even more before the increase in the temperature of the liver was noted.

It would appear, therefore, that the application of heat to the liver should counteract the effect of the exposure of the viscera in an abdominal operation upon any patient, and in particular in operations on the liver or on the bile ducts.

Attempts have been made to meet this requirement by hot water pads, hot tapes, the use of a hot-water mattress, and a superheated operating room, but none of these methods have satisfactorily met this crucial need.

Recently it occurred to me that the application of diathermy would be an ideal method for holding the temperature of the liver at or about the normal level. The principle of diathermy is that the passage through the tissues of a current from a specially devised apparatus heats the tissues. Therefore, if one pole of the diathermy apparatus were placed upon the lower chest on one side and the other brought opposite the dome of the liver, then the current would pass through the upper abdominal organs including the liver; and since this current would be continuously applied during the operation, the temperature of the liver and of the abdominal viscera in the track of the electric current would be maintained at or above the normal, regardless of the exposure of the intestines. It must be borne in mind that on account of the enormous spread of the capillaries, veins and arteries very near the surface of the viscera, the blood in the whole splanilinic area almost immediately assumes the temperature of the air to which it is exposed. It is almost as if the blood in one part of the circulation were spread out in a thin layer on a great table and were then collected and again placed in circulation. By the passing of the diathermy current through the liver and the neighboring viscera this thin layer of blood is, as it were, made to pass over a hot table, so that warm, instead of cool blood passes into the rest of the circulation.

The electrodes can be put in place and the diathermy current established before the abdominal incision is made and neither the surgeon or the patient need be aware that such a current is passing, as the use of rubber gloves completely insulates the hand of the surgeon.

We have found by actual observation that by this means the temperature of the dome of the liver can be maintained above normal throughout an operation in which the abdominal viscera are widely exposed.

The higher incidence of pneumonia after ab-

dominal operations than after operations of an equal magnitude on other portions of the body is well recognized. In view of this fact, and in view of the facts which we have cited one might well question whether or not this is the result of the cooling of the blood in the important organs within the chest plus the general depressed function of the organism as a whole as the result of the cooling of the liver. We are therefore, now noting whether or not the maintenance of a constant temperature in the liver and other abdominal viscera by the use of diathermy is lessening the incidence of post-operative pneumonia.

In addition we are using repeated doses of diathermy after operation in feeble and aged patients, and after especially wide and prolonged exposure of the upper abdomen, delivering the dose through the bases of the lungs, as this is the area where post-operative pneumonia is initiated. In addition to the advantage of heat, the increased temperature must induce a more active circulation in this area and thus increase the defense against infection. As shown above, a lowered temperature of the liver, hence, impairment of the whole organism may be induced by ether anesthesia. While this effect may, to some extent, be counteracted by the application of heat, the best method of protection is to substitute for ether the anesthetic which our researches have shown produces very slight lowering of the liver temperature, namely, nitrous oxid; and in especially bad risk cases not to allow the patient to pass beyond the stage of analgesia, relying principally upon regional anesthesia.

In addition to the above factors of danger which pertain to all abdominal operations—the lowering of the temperature of the liver, the inhalation anesthetic, and the lowering of general blood pressure by surgical shock, there are certain factors which pertain especially to gall-bladder operations. The most important of these are: interference with circulation in the splanchnic veins and the presence of free bile in the peritoneal cavity.

The principal source of interference with circulation in the low pressure splanchnic veins is the packing of gauze pads down upon the surface of the liver. It should be borne in mind that when operating upon the biliary passages, upon the common duct in particular, one is impinging upon the most important net work of sympathetic nerves and ganglia in the entire abdomen. In fact the center of the entire sympathetic system is within this zone. The position of the surgeon in this respect might be compared to that of an electrician called upon to make an important repair upon the switchboard of a great telephone system or within the control station of a great battleship. It must be borne in mind also that this intricately wired system is exposed not only to the immediate technic of the operator, but also to contact with the drains and later damage from adhesions.

The danger from bile in the peritoneal cavity is not always clearly appreciated, but experience has shown that the contact of bile with the free peritoneal surfaces produces a destructive effect locally and depresses the entire organism. If jaundice exists at the time of operation, therefore, or if bile escapes into the peritoneum during the operation, the operative risk is markedly increased.

Two controversies have held the field ever since the first operations upon the gall-bladder were performed: (1) Whether cholecystectomy or cholecystotomy is the method of choice; and (2) whether drainage should or should not be employed after cholecystectomy.

CHOLECYSTECTOMY VS. CHOLECYSTOTOMY

If stones are present, if the gall-bladder is thickened, if it is not blue, if its walls are not materially changed in texture and in color, and there is considerable fat on the outer walls, if the pilot gland of Lund is felt, the gall-bladder is removed. If the pathological signs are less distinct, then, provided a canvas for other causes of the patient's symptoms has been made and the appendix, the pancreas and the genito-urinary tract have been found to be guiltless, the surgeon often decides that since the stage is set and since the gall-bladder is not an organ of vital function, it may as well be removed. It is in this group of cases that the highest percentage of clinical failures are found.

As for cholecystotomy, it may be said that the operative mortality is slightly lower in the bad risk patient. Aside from this fact, however, it should be borne in mind that while in the case of a damaged gall-bladder wall, the results of cholecystotomy are good, they are not as good as those of cholecystectomy; that in the case of a strictured cystic duct cholecystotomy is a futile operation; that it is certainly debatable whether drainage or excision of the gall bladder gives the most desirable results in cases of stones floating in normal bile within the nearly normal gall-bladder walls. On the other hand, it must be remembered that the final clinical effects of cholecystectomy have not yet been confirmed, therefore, a general, final, decisive answer to this question can not as yet be made.

The points of view of my associates and myself regarding the relative value of these two types of operations is indicated by a study of our records which shows that prior to 1921 the ratio of cholecystectomies to cholecystotomies was as 31 to 69, whereas since 1921 the ratio is as 83 to 17.

As for the technic of cholecystotomy, two

principal cautions may be emphasized, (1) the gall-bladder should not be attached to the abdominal wall as the effect of the heavy dragging upon it of the liver can not fail to be unfavorable; and (2) a drain should not be inserted beside the gall-bladder, emerging from the abdominal wound. If drainage is necessary it is least harmful in Morrison's pouch, emerging laterally.

As for the technic of cholecystectomy, the following points are essential: (1) the gall-bladder must not be opened; (2) not even a single liver cell should be wounded; (3) the cystic duct and the cystic duct alone should receive the ligature; (4) the common duct must not even be crowded by the ligature; (5) not even a fragment of the base of the gall-bladder should be left; (6) the field should be kept constantly so clear that an accessory or abdominal duct can be seen; (7) in general the duct and the artery should be tied separately, although if the common pedicle is small, there would seem to be no risk in tying them together; (8) to prevent adhesions, to minimize oozing, to control the transudation of the capillary bile, the raw surface of the liver should be closed by means of a fine round curved needle, the stump being buried beneath the suture line.

DRAINAGE

Many, perhaps most of the clean cholecystectomies may be closed without drainage, yet occasionally there will come an unusual case, apparently the easiest and cleanest of all, from which bile leaks in some way and the patient is threatened with, or may even die from bile peritonitis. Bile leakage obeys no law. It is the outlaw of upper abdominal surgery. Its possible explanation is that some small adherent bile duct, through which a small hepatic area is drained directly into the gall-bladder, is unintentionally or unknowingly divided so that after the wound is closed, it oozes unnoticed until bile peritonitis is established. This occasional occurrence supplies the argument for drainage.

Against drainage there are the charges that it causes adhesions; that it creates a well rather than a stream, that is, that too much fluid must first accumulate before it escapes; that convalescence is slower; that it causes a protracted and considerable functional disturbance: In the past we have insisted upon these objections as if an up-hill drain were the only drain, whereas there is a quite ideal alternative, that is, the route through Morrison's pouch, which is effective and free from the objections listed above. First, it is dependent, hence there is no resultant pull; second, the resultant adhesions are not at such vulnerable points as those caused by an anterior drain. By employing this method of drainage which we use after every cholecystectomy, the abdominal incision can be closed completely, thus avoiding a weak scar.

OPERATIONS ON THE COMMON DUCT

In cases of *common* duct obstruction the prime damage is due to the depression in the liver function as a result of its engorgement and distention with bile. It follows that when that operation is required in the presence of jaundice and resultant depression of the liver function, it is especially important that the measures we have already indicated be scrupulously applied, and that special measures for the conservation of the internal respiration of the liver cells be employed. It should be borne in mind in these cases in particular that the function of the liver is depressed by narcotics, especially by morphine; narcotics, therefore, are contraindicated both before and after operation. Blood transfusion promotes the oxygenation of the cells, and water should be given by mouth and by hypodermoclysis. In grave cases, the operation should, if possible, be divided into two distinct physiological stages. The first stage should include only such measures as are required for the relief of the biliary obstruction, wholly disregarding any maneuver for the removal of the stones unless they are in the way. If the gall-bladder is distended, it should be drained by a fluid tight system, decompressing it slowly by intermittently unclamping the rubber drain. The ultimate operation can well be delayed until the danger point is passed, and the stability of the liver cells and of the brain cells has become established.

As to the operative technic in jaundiced cases, we are committed to ample exposure, that is, to a long incision; but if the gall-bladder is distended, a short incision, for merely establishing drainage, may be all that is required, especially in aged patients with large gall-bladders which are easily defined prior to operation. A very short incision immediately over the gall-bladder for the insertion of the drainage tube may be so conducted as to become almost a minor operation. On the other hand in broad-chested, fat patients, jaundiced as a result of the obstruction from common duct stones, the Bevan or the Kocher incision may give a better exposure than a vertical right rectus incision.

In cases of common duct stones associated with chills, prostration, etc., in which the gall-bladder offers an avenue of temporary relief by drainage, the operation is divided into two parts, the first consisting of gall-bladder drainage only, followed later by a curative operation on the common duct.

If forced to operate in the midst of chills, prostration, etc., in a jaundiced case in which

the gall-bladder is usually a shrunken mass of scar tissue containing no bile, while the common duct is dilated, the common duct is dealt with as follows: With a syringe, much of the bile is drawn off; in part to prevent contamination of the field when the duct is opened, in part to determine the kind of bile, the presence of pus, etc. The common duct is then opened and the stones in the immediate field removed, but no difficult and prolonged search is made, not even a prolonged effort to dislodge a stone in the duodenal part of the duct; but drainage—rubber tube drainage—sewed in to make a fluid tight connection with the common duct, completes the technic. An abundance of drainage is placed around the point of common duct drainage and a generous portion of the incision in the abdominal wall is left open to ensure a safe drainage.

At the conclusion of an operation in which the entire biliary tract is not clearly defined and explored by the usual common and hepatic duct instrumentation, associated with the usual manipulation and palpation—that is, an operation completed without definite knowledge as to the number and location of stones—the surgeon has an uncomfortable feeling of suspended judgment, but he has his patient, who may be cured on another and more auspicious day.

SUMMARY

The evolution of our method of management of operations upon the liver and biliary ducts as based upon 77 operations on the liver, and 1,701 operations on the gall-bladder and ducts may be summarized as follows:

(1) Before operation employ saline infusion, the subcutaneous injection of 3,000 to 5,000 cubic centimeters of water repeated as indicated.

(2) In jaundiced cases delay operation until the clotting time of the blood has been reduced by calcium.

(3) Avoid narcotics.

(4) In grave cases divide the operation into two stages.

(5) Apply heat to the liver and upper abdomen, during and after operation, by diathermy.

(6) Employ the transfusion of blood as indicated.

(7) Employ analgesia and regional anesthesia.

(8) Employ dependent drainage through Morrison's pouch.

(9) Strictly individualize each case.

(10) Fortify the defense throughout by promoting liver function.

THE HISTORY AND EXAMINATION OF PATIENTS

(The Following Papers Were Presented at Our Annual Meeting in the Symposium on the above titled subject.—Editor.)

THE HISTORY AND EXAMINATION OF THE PATIENT, FROM THE MEDICAL POINT OF VIEW

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The examination of a patient consists of three parts: (1) history, (2) physical examination, and (3) laboratory examinations. In the majority of cases no one of these is sufficient for an accurate diagnosis, and to give the patient the best service all three methods of examination should be practiced.

For medical students who are learning the art of history taking and examination, it is desirable to have a full history, but the experienced clinician seldom finds it necessary to enter negative data in his notes. The history consists of the family history, past history, and history of the present illness.

In the family history, hereditary diseases, such as hemophilia, are of importance. There may be a family tendency to early arterial disease or to diabetes mellitus. All such facts may be important in diagnosis.

In the past history, one should note the general health of the individual and also any serious illnesses, including contagious diseases and operations, if any. The occupation of the patient at times furnishes clues of great diagnostic value, as in lead poisoning, carbon monoxide poisoning, tularemia, etc. In addition to these points, one should make inquiry into the various systems, the cardio-respiratory, gastro-intestinal, genito-urinary, neuro-muscular, bones and joints; the weight, including fluctuations, and the height are recorded. Diseases of the organs of special sense—eyes, ears, nose—are often important. The importance of focal infection is so generally recognized at the present time that it is apparent to all that a history of diseased tonsils, sinuses, teeth, gall bladder, prostate or tube may have a decided bearing in an individual case.

I know of no rule which will enable a novice to take an accurate history of the present illness of a patient. The questions to be asked will depend on the nature of the illness. Of course, leading questions are to be avoided, and in the case of more intelligent patients, it is well to let the patient first give the story of his illness in his own words. Certain aspects may then be amplified by questioning the pa-

tient. One's success in obtaining the history of an illness—aside from the variable factor, the patient—depends upon patience, skill, clinical experience and the general medical knowledge of the physician. In obscure cases the history may be of the utmost importance and may require considerable time. One of the foremost diagnosticians in this country considers the history of such fundamental value in reaching a diagnosis that he uses his valuable time in taking his own histories of the patients who consult him, rather than to trust to a less experienced assistant.

Having completed the history, one passes to the physical examination, which requires stripping the patient at least to the waist, and preferably removing all the clothing.

The physical examination should be thorough, and to attain this one should have a definite routine of examination to avoid omissions. After noting the general state of nutrition and build, one observes the color and texture of the skin and any cutaneous lesions, subcutaneous swellings, etc.

The head is next examined. In the eyes one should test the pupillary reflexes, note the color of the sclera, test the external ocular movements and examine the fundi with the ophthalmoscope. The visual field should also be tested roughly. The ears should be inspected for discharge and tophi and the hearing roughly tested with a watch. If there is a history of otitis, the auroscope should be employed. The nose, mouth and throat should likewise be examined in all cases.

The neck should be inspected and palpated for possible goiter, enlarged glands, abnormal pulsation, etc.

Examination of the thorax includes a complete physical examination of the lungs, pleura, heart and great vessels and the mediastinal contents. Obviously this can only be done when the clothing is completely removed. In the examination of the lungs, ausculatation is probably the most important method, whereas in cardiac work, palpation and percussion give more valuable information than auscultation, as a rule. But the only safe plan is to inspect, palpate, percuss and auscult in all cases. Blood pressure determinations and palpation of the superficial arteries, noting sclerosis, tortuosity, aneurysmal dilatations, form a part of the routine examination of all patients.

Next, the abdominal organs are studied by means of inspection and palpation and percussion, and any abnormalities noted. Rectal and pelvic examinations are often indicated and are included in the routine examination of patients by many clinicians.

The external genitalia, the bones and joints, the muscles, the superficial and deep reflexes, the superficial lymph nodes, the extremities are likewise examined, completing the general physical examination.

Laboratory examinations will vary in individual cases, but the routine examination of all patients should include a urine examination. A blood examination often yields information essential to the diagnosis. Gastric analysis, stool examinations (a greatly neglected field), examinations of the sputum, cerebrospinal fluid, chemical or serological examinations of the blood will at times be needed to clear up a diagnosis. Roentgen ray examinations of all parts of the body have proved to be so valuable as aids in diagnosis that no emphasis is required as to their importance. There is a danger in the use of the X-rays in diagnosis to which I wish to allude. All too frequently one sees the physician neglecting the physical examination of the patient, trusting the X-ray to reveal all. No greater mistake can be made. A complete physical examination should always precede X-ray studies, and the latter should be interpreted in the light of the history and physical findings. The physician who leans too heavily on the X-ray soon loses his skill in physical examination, and not only his practice, but his patients suffer. It is rarely possible with any laboratory examination alone to arrive at a satisfactory diagnosis. What does positive Wassermann reaction tell one, if the history and physical findings are not known? What does an eosinophilia, a leukocytosis, an albuminuria signify if one has not the clinical data of the case? Even the finding of asexual malarial plasmodia in the blood does not necessarily mean that the patient is having chills and fever. The laboratory findings are often the determining factor in elucidating a diagnosis, but without the data derived from the history and physical examination, the clinician cannot expect the laboratory worker to make the diagnosis for him.

In certain cases, special procedures will be indicated, such as cystoscopy or ureteral catheterization, perimetric determination of the visual fields, examination of the nasal accessory sinuses, requiring consultation with specialists.

That time spent in carefully studying patients is richly rewarded must be apparent to all. Patients appreciate careful, thorough examinations and send their friends to the doctor who studies his cases. The value of keeping notes cannot be over-emphasized. No man can remember long the various details of an illness. Unless notes are made, the past soon becomes a guess, more often wrong than right. One doing a consulting practice cannot fail to be struck by the fact that, as a rule, it is those physicians who make and record careful studies of their patients to whom the best class of patients go for advice.

If you will permit me, I should like, before

closing, to illustrate the necessity of a complete study of the patient by citing a few cases.

Case No. 1. The first case that I would like to refer to is one which I saw a number of years ago, a man who gave a history of fainting spells, associated with gastric disturbance. It was thought, from the history of these fainting spells and from the fact that at one time he had a rather slow pulse, that his trouble was cardiac, and he was referred to a heart specialist for examination. A very careful physical examination of the cardiovascular system was made, including X-ray examination of the chest, electrocardiographic and polygraphic tracings, and the man was told that functionally his circulatory apparatus was normal, and he was sent home.

About a month later, when I first saw him, on making a physical examination of the patient, a carcinoma of the pylorus about the size of a lemon was palpable, a finding which must have been present when he consulted the heart specialist, but which was missed from the fact that the man looked upon the heart as not being related to the rest of the patient's body, and the symptoms were misinterpreted as cardiac when apparently they were gastric.

The patient had his pylorus resected and was well for two or three years afterwards, when I lost track of him.

Case No. 2. Another case that I would like to mention was one that I saw last fall in whom a diagnosis of angina pectoris had been made. The patient was a man about forty years of age, whose chief complaint was nocturnal attacks of dyspnea. These attacks were not associated with pain, and on just what grounds the diagnosis of angenia pectoris had been made I am not sure. In this particular case the diagnosis depended chiefly upon the history and laboratory findings. The patient had these attacks with great regularity, and a striking fact in regard to his attacks was that they came on within a half hour to an hour after going to bed. He never had the attacks during the daytime. This fact suggested, of course, the possibility of some protein sensitization, and in making skin tests for protein sensitization it was found that the man was sensitized to the protein in goose feathers. Substituting a hair pillow for his ordinary bed pillow completely relieved him. He has had no attacks since then, with one exception when he took a trip on the sleeper and forgot to take his hair pillow along with him. He thought he would try it out; he slept on the pillow that was in the sleeping car, and promptly had another attack.

Had that man's history been gone into more thoroughly, I don't believe a diagnosis of angina pectories would have been made. Certainly, there was nothing in his history to justify such a diagnosis.

It is not unusual to have patients sent in to the receiving ward with a diagnosis of acute appendicitis and labeled for an emergency operation. The majority of times, of course, that diagnosis correct, but every now and then the surgeon finds nothing and returns the patient to the ward, and the next day there is a manifest lobar pneumonia. The studies that Joseph Capps of Chicago has made have shown very definitely that inflammation of the diaphragmatic pleura causes pain which is referred to other parts of the body. From the central part of the diaphragm the pain is referred through the phrenic nerve to the neck, particularly along the trapezius border, whereas from the peripheral part of the diaphragm the pain is referred to the abdomen or to the backin the lumbar region through the lower dorsal segments.

In patients in whom there is any question about an abdominal lesion, in making a physical examination one should always keep in mind the possibility—where there is fever, leukocytosis, abdominal pain—of a diaphragmatic pleurisy causing reflex or referred abdominal pain.

Since Capps' studies were reported some ten years ago, we have had in the neighborhood of 140 cases of diaphragmatic pleurisy on the medical service at the Cincinnati General Hospital. Before we began looking for the pain along the trapezius border, for the superficial skin tenderness that Capps pointed out, for the other evidences of diaphragmatic pleurisy, it was not uncommon to have patients operated on for supposed gall bladder disease, appendicitis, or what-not, when no such lesion was found, and where, if we had known how to recognize diaphragmatic pleurisy, operation might easily have been avoided.

Such cases do not come to the operating table as often as they did ten years ago, but there are still too many operated upon.

Case No. 3. Another case that I saw a good many years ago I would like to refer to. It was a somewhat similar case. A young man was sent to a hospital with fever, with a leukocytosis of 17,000, with a palpable mass in the lower right quadrant and severe pain, and also with gastrointestinal symptoms. The patient was thought to have an appendiceal abscess. Operation was performed and no abscess was found, but there was a large mass of succulent lymphatic glands in the lower right quadrant corresponding to the mass which had been felt. The abdomen was closed and only after the operation was the blood stained and a differential count made, which showed that 98 per cent of his leukocytes were lymphocytes. The man had an acute lymphatic leukemia and was dead within a week. Had the examination been more thorough, had a routine stained smear of the blood been examined, the patient would have been saved operation, and a correct prognosis would have been made.

One cannot neglect thoroughness of work if one is going to try to avoid pitfalls in diagnosis. One might go on citing such cases without end. Cases of brain tumor are overlooked because of carelessness in examination, failure to examine the fundi. The differentiation between uremia and diabetic coma, of course, is easy if one does a urine examination, but a differential diagnosis between uremia and cerebral hemorrhage is not always so easy. In such cases study of the chemistry of the blood, study of the urine, functional studies of the kidney, will sometimes help one clear up the diagnosis

before the patient dies or before the natural course of the disease makes it apparent.

The extent of medical knowledge has increased to such a degree that it is impossible for any one man to master it all. The result has been the development of various specialties. Too often, the young graduate enters a specialty without any general clinical knowledge. Were the body composed of various parts having no relation to one another, such a course might be justifiable. No physician, no matter what his specialty, can do full justice to his patients or himself unless he regards the body as a whole.

In his classes, the late Sir William Osler, one of the greatest personalities that clinical medicine has produced, was accustomed to emphasize the fact that the first essential in treatment is an accurate diagnosis. This brief outline indicates in a general way the kind of examination which patients have a right to expect when they consult a physician. There is no short cut to a complete diagnosis, and the successful clinician must ever remember the words of John Hunter: "Don't think; try. Be patient. Be accurate."

THE HISTORY AND EXAMINATION OF THE PATIENT, FROM THE SURGICAL POINT OF VIEW

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I have first to acknowledge the courtesy of the Michigan State Medical Society in giving me the opportunity of meeting with it. I feel very strongly that it is a sign of the times when so many men are willing to give up their duties for a period and attend such meetings. It is essential in the life of every individual that he should have the opportunity of meeting with his confreres, with some fellows from the outside, thus refreshing his memory, possibly with things that he already knows, but coming in contact with men who are doing similar types of work.

At the time I accepted the invitation I did not know that mine was one of a series of papers along the same line, and what I surmised has happened, that Dr. Morris has very largely covered the territory with which I had planned to deal. So what I have to say to you must come largely from an experience of teaching, and will smack more or less of the academic, but that is not an unmixed evil.

As I understand your executives have decided, it is possibly wise for most of us to get back to our student days, not to revise our thinking, but to think again the things that we thought at those times, possibly from the viewpoint of the newer atmosphere.

The research of Pasteur and the clinical application of these findings by Lister have made possible in surgery the exploration of all regions of the body in a way probably never dreamed of by those members of our profession who practiced surgery in pre-Listerian days. It should not be forgotten, at the same time, that with this increased and ever-increasing opportunity, there also comes an increasing responsibility on the part of the modern surgeon.

The ease with which one can explore, with comparative safety, the recesses of the abdomen, the chest, or even the skull cavity, tempts many to adopt this exploratory method of making a diagnosis, rather than the more indirect and often more difficult method of careful study of the history and clinical examination of the patient. The experience of every mature surgeon proves that the exploratory operation is not as free from danger as has been believed. The patient on whom any such operation has been performed cannot be expected to be as well as if no such procedure had been followed. Always some pathological condition remains, such as adhesions of disturbed viscera, weakness of the wall of the cavity explored, and the mortality, especially in patients beyond middle life, is not inconsiderable. The speaker would not like to be considered as proposing the abolition of necessary exploratory operations, but would like to be thought an advocate of careful weighing of all available data in the attempt to arrive at a true diagnosis before operative measures are considered.

In these days, it seems easily possible for any surgeon of reasonable ability and application to master the modern technique of the surgery of all regions of the body. If this be true, then the practitioner who aspires to become a master of surgery should place the emphasis on diagnosis and surgical judgment. Surgical judgment is probably most largely the result of wide experience, and, of course, this can be acquired only by process of time in a large operative clinic, with painstaking observation and a noting of the findings of each case. For the younger surgeon this process is facilitated if he has had the opportunity to work for possibly a long period in close association with a mature surgeon who has already attained this desired position.

Accuracy of diagnosis, however, may be accomplished by painstaking labor, together with systematic and accurate observation and critical analysis of all findings, combined with confirmatory details of laboratory findings. It is undoubtedly true that nearly all of the great advances in medicine, both from a therapeutic and diagnostic standpoint, have originated from laboratory researches, and there is nowadays a tendency on the part of most of us to accept the short cut method of diagnosis offered us by

the more or less mechanical method of the laboratory.

I was very pleased to hear Dr. Morris deprecate this from the medical standpoint, as we are becoming more and more satisfied that it is a fault from the surgical standpoint.

Such a diagnosis, made in most instances without a knowledge of the clinical findings, is apt to be fallacious, and the object of such a paper as this is to stress the necessity of careful history taking and clinical examination of the patient. Before the laboratory played such a prominent part as it does now, the diagnostician was faced with the necessity of carefully noting and estimating the value of every detail of the history of his patient. This was followed by a keen physical examination, and from the information thus gleaned many of our predecessors became wonderfully proficient in the art of arriving at an accurate diagnosis. It is surely a desirable aim to attempt to hold all that our fathers in the profession learned and to cultivate the keenness of observation, the facility of touch, and the instinctive or intuitive faculty of these men, of whom Hilton Fagge is a worthy representative, and at the same time to add our own modern methods.

In attempting to secure the history of a patient with a surgical ailment there should be the same systematic approach that is usually followed in the case of a medical patient. It may be there is a point of weakness in the teaching in our medical schools in this regard, as most of the teaching of physical examination is carried out in the department of medicine. The best history will be obtained by one who repeatedly and carefully follows a systematic plan of attack. The first history taken by a student will not be very valuable or very helpful in arriving at a correct conclusion, but with increasing experience he will succeed in obtaining the salient facts and will avoid the irrelevant.

The value of a history depends a great deal on the intelligence and honesty of the patient, and to a somewhat similar degree on the accuracy of his memory regarding the past, especially if the story covers a long period of time. Some patients err in omitting facts which they consider trivial or because they are fearful of being considered neurasthenic; many more, consciously or unconsciously, color their statements to fit their ideas of their ailments, and many exaggerate their symptoms in order to duly impress the surgeon with the seriousness of their complaint. To elicit and evaluate properly these various factors requires imagination, intuition and judgment. For the most part it is essential to get the patient to tell his story chronologically and with as few leading questions as possible. After obtaining the entire story, any obvious omissions may be filled in by a species of cross-questioning skilfully carried out. As a matter of statistics, it has been proven that a very large percentage of statements made in such a recitation of supposed facts and subsequent cross-examination are erroneous. Hence the effort to make a diagnosis by giving the history a 100 per cent value will tend to faulty conclusions if the history is only 50 per cent or less dependable.

I have noted the absolute necessity of following the routine method of a general examination after the examination of a special part is considered, as is noted by Dr. Morris. I don't propose to detain you by rehashing any of the statements which he has said better than I can say. I would just like to reiterate, however, that the necessity for the general examination of the patient suffering with some particular supposed condition is as essential in the surgical examination as in the medical examination. The examination of the special condition should be followed very definitely by a general examination of the patient, and it is only in this way that we can hope to arrive at a fairly accurate estimate of the patient's condition, and we will be apt to uncover conditions which are absolutely essential in arriving at a conclusion.

For instance, we come in with a patient who has an ulcer on the sole of the foot. It may be a traumatic condition from a bruise, or it may be a burn or a simple traumatic ulcer, and if we simply examine the foot, it is quite possible that we would be willing to accept that as a reasonable diagnosis.

If, on the other hand, we have gone carefully through the general examination of the patient and we have found that this individual has a glycosuria, then it is quite within reason that we would suggest that this ulcer might be or probably would be a diabetic ulcer.

On the other hand, if in a similar condition we found in the examination of the nervous system that a man had a hairy growth possibly over the lumbar spine, or a mass of lipomous tissue over that same region in the lower lumbar spine, we would drop at once on the fact that he probably had a spina bifida or a spina bifida occula, and that the changes in his spine were responsible for the ulcerated condition.

That is simply by way of illustration of the necessity of the general examination in practically all cases.

Now may I digress from the general subject which was given to me, and consider with you for a few moments the method of examination of a specific region. It is obviously impossible that one man should cover the examination of the entire regions of the body from the surgical standpoint in a brief period such as allotted, and wisely allotted. As a consequence, if we are going to get anything of concrete -value out of it, it seems to me that possibly it might be wise for me to take a specific region of the body and attempt to bring

out the factors which might be helpful in the question of examination and subsequent diagnosis, because in the long run the examination and the history taking, painstaking as each should be, are simply factors in an effort to establish a diagnosis that the patient may be better treated.

I shall take the subject of the abdominal condition, just as an illustration of the method of attack which we put before our graduating classes, for instance, in helping them or attempting to help them to develop a system by which they will probably arrive at a saisfactory conclusion and avoid the pitfalls so well brought out in the suggestions made by Dr. Morris.

I tackle the problem in this way. If you have a condition of which the disability complained of is in the region of the abdomen, that does not necessarily mean that the pathological condition is in the abdomen. It was noted by my colleague on the medical side that certain chest conditions are followed by symptoms referable to the abdomen. So if you keep that in mind, the moment you have a complaint of that sort, instinctively and as a matter of routine you will think along such lines as this: that this may be, must be, as a matter of fact, either an intraperitoneal or an extraperitoneal condition. It is so easy to jump at the conclusion when a man has a pain in his belly that it is such a condition; it may not be. It is wise to have a routine method of examination in order that everything may be considered.

If you start with the extraperitoneal condition, it must be in one of four regions, either anterior to the peritoneal cavity, posterior to it, above it or below it. Those are mechanical problems. On the anterior you know that you have only certain conditions that can happen, a condition of the abdominal wall, possibly troubles in the umbilicus. Then when you have got nearly as far as you can get, consider that these conditions (and I give this suggestion to the student to make it more easy for him to comprehend) may be traumatic, may be inflammatory, may be congenital defects of some sort, or may be a new grwoth of various types. Those four groupings will cover, to a very large extent, nearly everything that will happen in these various regions.

If you have no history of injury, that excludes the first one, the traumatism. If you have, you may have a hematoma, a rupture of muscles, an infection later in the hematoma, but the starting point is with the hematoma. The illustrative type there is probably the abscess from the inflammatory condition, because there are very few things of an inflammatory nature in the anterior wall.

Then in the neighborhood of the umbilicus the congenital defects are the urachus, patent urachus, or the omphalomesenteric duct, patent Meckel's diverticulum, and these may be a source of trouble from an anterior standpoint.

Behind the peritoneum you will have certain structures which must be constantly kept in mind in the examination of the abdomen, noticeably the kidney. How many men have been puzzled for a time with regard to the stone in the kidney giving signs of abdominal distress and pain, even simulating very closely obstructive symptoms? I am quite sure that is within the range of possibility. Yet if we remember that it is only a matter of following up the urinary findings and making a careful examination, possibly aided by the X-ray, one can eliminate the possibility or probability, at least, of kidney conditions.

Wth the kidney condition, such retroperitoneal masses or tumors as illustrated by Dr. Morris, various types of glandular enlargement behind the peritoneum must be considered in estimating whether your lesion is intra-abdominal or extra-abdominal.

I insist on one other condition, which is often forgotten: it is that the spine is behind the abdomen and is often a factor in the production of symptoms which simulate abdominal ones very closely. Probably the most frequently overlooked is that of tabes dorsalis. It only needs a careful examination of the neurological system to pick out the question of tabes and eliminate the radiating pains of tabetic conditions.

Potts' disease is frequently overlooked, with its radiating pain in the lower dorsal and upper lumbar region. Careful examination of the spine is frequently overlooked by the medical man, and we have had in the surgical side numerous instances of Potts' disease of the spine being sent over from the medical side for operative procedure. So the spine should be carefully examined as well.

Above the peritoneal cavity are those factors of which Dr. Morris spoke which I would like to emphasize—the question of basilar pneumonia or diaphragmatic pleurisy and pericarditis. Unquestionably from time to time pericarditis will give you abdominal symptoms whose origin it is very difficult to determine unless a careful examination is made. I am quite sure my medical friends will admit there are some cases of suspected basilar pneumonia or diaphragmatic pleurisy which cannot be determined by physical examination by the medical man, and yet have the signs of pain in the abdomen. There I am perfectly sure that the proper team work between the medical man and the surgeon will result in the elimination of a probable operation.

The type that I want to speak of particularly is that type of lower pneumonia in the child before it gives any symptoms at all, centrally located possibly in the base, or spread-

ing to the diaphragm. The chief factor that you have in conjunction with a lesion of that sort in the chest above the diaphragm is not only pain, but rigidity, and it is the rigidity that is misleading from the surgical standpoint, because it is upon that factor that we largely depend for the criterion as to the inflammatory changes inside the abdominal cavity. There is one factor about the rigidity which ought to be carefully noted, and that is that it is not persistent, that with the respiratory changes the muscle guard lessens, so that if one keeps a constant pressure over the muscles it is only a brief time before you find in the expiration that the muscle lets go for a time, to come back again with the inspiratory movement. As a consequence of that, if you keep pressing on it, you find that you do not have that continuous spasm that you will have in an intraperitoneal condition. Further than that, the localized tenderness which you constantly get in the appendiceal conditions is not present in this condition.

The pericarditis must also be kept in mind. It is usually very readily picked up, and only needs to be remembered to isolate it as a probable source.

One other region remains, and that is the region below. Again, it is fairly common to see our medical confreres overlook the question or hernia, the question of scrotal or testinal involvement; the possibility of disturbances in the urinary bladder and prostate are usually not overlooked, although I think as a rule it is true with us that the rectal examination is made more frequently by our surgical colleagues than by the medical men, and very frequently information is picked up by this direct examination which would be readily overlooked if such examination were not made.

Let me bring you back to the question of the intra-abdominal condition. The consideration of the intra-dominal conditions should be accompanied by an accurate history. If the patient is complaining of the right side, epigastric distress or pain, or if there is a swelling there, one naturally should think first that the condition is related to the anatomical factors in the neighborhood, and the only thing you have in that neighborhood in the abdomen is the liver and the gall bladder, with the biliary attachments, and possibly the first part of the duodenum.

The question of whether it is traumatic can be readily eliminated, because if you have a traumatism there, the injury to the liver is readily found by careful examination of that history, but, of course, one finds in the ruptured liver that the patient very rarely comes to examination.

The continued signs located always in a certain definite region rather lead us to the feeling that whatever the pathology may be, it is allied to the anatomical structures in that particular region.

Having exhausted the possibilities of the situation in the right epigastric region, you have still to consider the colon on that side, the cecum, and the appendix, which is a very grave source of pathological condition.

There are two or three factors in the right side that one feels may be permissible to touch upon . The conditions of the so-called acute abdomen, leaving out the traumatic considerations, must relate themselves pretty largely to the inflammatory conditions. The subject of an acute attack of pain in the upper abdomen in that region will probably be simmered down to the possibliity of cholecystic trouble, either inflammatory or due to colic, and the question of duodenal conditions with perforation, possibly, and perhaps obstruction from new growths of various sorts.

It seems to me that this is the point in which the history of the patient is of very great assistance, combined with the examination. If the patient is lying perfectly comfortably, at least quietly instead of comfortably, the probabilities are that the pain of which he is complaining is more likely to be inflammatory than colic. On the other hand, if he is rambling around and restless and thrashing about, it is much more likely to be colicky, due ot obstruction or stone, than inflammatory in character.

The other factor that one feels pretty definitely is always associated with the gall bladder conditions, is vomiting. The vomiting, while it is pretty common in most of the abdominal conditions, is not as persistent with the others as with this, and this also is helpful.

The palpation of the area also is a matter of experience and a matter of training, and can be cultivated to a very large extent.

The lower abdominal conditions on the right side in the male are not likely to be misinterpreted if the complaint of the pain in that region is accompanied by slight or greater fever, with the pulse rate correspondingly increased, and a marked and definite leukocytosis, with rigidity and tenderness on palpation. Then for the most part diagnosis of acute appendicitis is quite easy.

On the other hand, if you have a patient with an appendix over the brim of the pelvis, you may not have any of these signs except possibly the leukocytosis and possibly an elevation of temperature, although you know how frequently you will have temperature not ranging over 99, with a red-hot appendix located in this region. That is a confusing type, and it can be definitely diagnosed only by the assistance of your rectal examination in addition.

Again, from time to time you find an appendix up behind the cecum, and if it happens

to be a long one, and the disease high up in the tip of it, you may not have any low right abdominal pain or distress at all; you may not have any symptoms beyond a more or less subacute distress, until the patient begins to complain of some pain up in the neighborhood of the right costal margin, and there you have a great difficulty in determining whether you have a cholecystic condition or a low grade inflammatory one.

The condition there, I think, is often complicated by the formation of an abscess, which tracks up behind the liver, and you get the subphrenic type. The subphrenic type of abscess is always associated with upper abdominal rigidity and not with lower, and it is associated, too, with an absolutely immobile diaphragm.

Possibly a more difficult one still is the abscess from a gall bladder, or even from a perforated duodenal ulcer, subhepatic instead of subphrenic. But if one keeps constantly in mind the possibility from this standpoint, it is not without reason that one can hope to make an accurate diagnosis.

I would like to emphasize again the statement which was made with regard to diagnosis, that the sifting of these various factors should make it possible to arrive at an accurate conclusion in a very large percentage of cases.. I think it is absolutely essential that every one of us seeing patients should make it a definite rule of practice to make a diagnosis in every case. It may be a provisional diagnosis, it may be an inaccurate diagnosis, but it is helpful in itself as a diagnosis, because the man pins himself down to the belief that the patient has such-and-such signs and they point to such-and-such conditions. He may modify it tomorrow by some additional symptoms or signs that may develop, and it may be possible that he may change it two or three times, but it is in the interests of the individual, of the patient, and I am quite sure it is in the interests of the practice of surgery at large for every man to compel himself to make such a diagnosis.

THE HISTORY AND EXAMINATION OF THE PATIENT FROM THE OPHTHALMOLOGICAL AND OTO-LARYNGOLOGICAL POINT OF VIEW

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It is my purpose in discussing this topic to not only consider briefly some points in the history and examination of patients from the ophthalmological and oto-laryngological standpoint that the general practitioner should know, but what every one of us engaged in the practice of the science and art of medicine should know.

Regardless of the department of medicine and surgery in which we specialize, we are representing the entire medical profession and should have a general knowledge of the whole field, that we may have a reliable working basis for a safe and sane diagnosis and treatment, in case we are thrown upon our own resources. Only in this way can we decide to whom to refer the patient for the special advice and treatment needed. The greatest responsibility rests upon the physician first consulted. Usually this is, or should be, the "family physician", and among the masses this is true. General practice is the biggest specialty in medicine and the general practitioner is not passing, but coming back into his own.

Briefly and concisely as I can, I shall give the method of taking the history and making the examination in the routine of cases that daily consult me. A card is filled out for each patient, containing the name, address, age, sex, race, occupation, and a brief history of the complaint, given either by the patient or attendant, as well as the name of the one referring the case. This card is brought to my consulting room, and I examine it, then when the patient enters, I ask him to give me a description of his complaints, during which recitation I note the facial expression, whether indicative of annoyance, discomfort, pain or anxiety, what time in the day or night the complaint is worse, what will aggravate it, whether the trouble began suddenly and if so, with what symptoms and make a record of any previous attacks.

I note not only the facial expression, condition of the skin and tongue, but also the character of the pulse, and inquire the condition of the excretory organs. In the majority of instances I have a urinalysis made, especially to note any excess of indican in the urine, for this excess is most important from the ophthalmological and oto-laryngological standpoint, suggesting the systemic treatment needed more than any other one thing.

In every case, whether ophthalmological or oto-laryngological, a note is made of the condition seen in the eye, ear, nose, throat and mouth, especially the teeth. As *ophthalmologists* and *oto-laryngologists,* I feel that it is our duty to do more than examine the one organ suspected by the patient as the cause of the disease, because of the intimate anatomical and physiological relation of the eye, ear, nose and throat.

I keep a condensed record, as approved by the American College of Surgeons, for use in general hospital service, of all patients consulting me, except:

1. A copy of the examination made by the one referring the case is kept.

2. No elaborate functional hearing tests are made unless in a case of impaired hearing or

the clinical evidence suggests labyrinthine or vestibular involvement.

3. Refractions with or without a mydriatic unless there is evidence of refractive error or intra-ocular disease.

OPHTHALMOLOGICAL EXAMINATION

The external eye, ocular expression, condition of the border of the lids, and whether or not there is any thickening or blepharitis marginalis. The palpebral conjunctiva is examined, especially the posterior folds. If the patient is over thirty years of age, the ocular tension is taken and recorded. The fundus is examined and if there is any evidence of intra-ocular trouble the pupil is dilated and a thorough examination of the fundi is made.

OTOLOGICAL EXAMINATION

This consists of inspection of the auditory canal and membrani tympani, condition of both being recorded with an especial note of any perforation, discharge, retraction or cicatrix in the latter. If there is profuse discharge more than would be the result of middle ear infection alone, mastoid involvement is suspected and a differential blood count and radiograph is made, or if the size and location of the perforation is not sufficient to give perfect ventilation and drainage a free myringotomy is done. In addition to these a smear is taken and sent to the laboratory. If there is any impairment of hearing the Webber and Rinne tests are made.

PHARYNGO-RHINOLOGICAL EXAMINATION

This begins with the oral cavity, the teeth being inspected and those suspected of being the seat of focal infection, especially crowned teeth, are noted. The appearance and condition of the soft palate, tonsils and supra tonsillar space is recorded with an especial note of the size of the tonsil, whether it be cryptic, phimosed, submerged or adherent to either one or both pillars. Any indication of lithemia or acidosis is also recorded, as well as the condition and appearance of the posterior wall of the pharynx.

RHINOLOGICAL EXAMINATION

Beginning with the anterior nares, inspection is made of the septum, turbinates and attic. If there is a deviation of the septum, note is made of its effect on the side of the deviation as to whether or not ventilation and drainage is blocked and impaired, whether there be purulent or muco-purulent secretion in the middle meati and from whence it comes. The post nares is examined for lymphoid or cicatricial tissue on the pharyngeal vault and its effect on the external orifice of the Eustachian tubes or for any interference in the ventilation and drainage of the nasal passages. Any abnormal condition of the posterior tips of the turbinates is recorded with especial note of muco-purulent secretion and from whence it comes.

TRANS-ILLUMINATION

This begins with inspection of the teeth, with the aid of the diagnostolite, then the maxillary antra are trans-illuminated, both intra and extra orally, concluding with the frontal sinuses. If in the examination of the ear, anything suggestive of a possible mastoid infection is found this process is trans-illuminated.

Usually the laryngological examination is made by the indirect method only, unless there is something seen or suspected which suggests the use of the direct method.

In all suspected cases of laryngeal involvement, the arytenoids, ventricular bands and vocal cords are examined and condition noted. In suspected cases where there is exudate or purulent sputum, smears and cultures are taken and sent to the laboratory for examination.

It is my chief aim to learn the cause of the trouble and whether it originated in the organ suspected, or is a sequelae of disease elsewhere in the body—in other words—is its etiology from within or without the body; is it due to bacteria, bacilli, or cocci?

The three chief sources of infection from an ophthalmological and oto-laryngological standpoint are infection from—first, inhalation, (airborne) second, absorption of septic material from other parts of the body, (focal infection), third, malnutrition, causing intestinal stasis, resulting in both bodily and mental deficiency because of the formation within the gastro-intestinal canal of bacteria giving rise to different forms and severity of toxemia, and whatever the organ of least resistance it will be felt in that organ in various forms.

To recapitulate, focal infection besides giving rise, frequently, to corneal disease, such as phlyctenules, or ulcerations, may give rise to multiple neuritis, uveitis, or gastro-intestinal reflex disturbance, also double vision, diplopia, or may be associated with tabes, multiple sclerosis or general paralysis, or it may also be the result of a peripheral neuritis.

Each case is a law unto itself, and if critically examined no two will be found to be exactly alike, and if similar, their responses to the same treatment will vary.

In cases of ciliary irritation or evidence of irido-cyclitis a radiogram is made of the bony structures above the alveolar process. I have had five cases of irido-cyctitis and two of acute glaucoma where the focus of infection was found to be an unerupted tooth. These cases were reported to the American Academy of

Ophthalmology and Oto-Laryngology, 1922, (See Transactions 1922, pp. 281).

In the ophthalmological examination I place emphasis on the reflex condition of the pupil and also the nature of the headache, the character of the pain and what time in the twenty-four hours it is worse. If there is a sluggish pupil reaction, slight haziness of the cornea, or increased tension it is at once suggestive of glaucoma. Regardless of the severity and location of the pain, the cause and removal of same must be instituted at once, or there will be loss of vision and perhaps the globe will be endangered.

Albuminuric or diabetic retinitis or hazy cloudy vitreous with contraction of the visual field calls at once for careful systemic investigation. Pappillitis or neuro-retinitis suggests at once looking for deeper focal infection, usually found in the post-ethmoid cells, or sphenoid, or if there is a choked disc an intra-cranial cause is suspected.

In the ora-pharyngo-hirnological examination if there is any condition of the teeth which is suspected as a foci of infection a radiogram is made, which includes examination of the bony structures above the teeth. I have had so many cases of unerupted teeth in adults, which gave rise to serious eye trouble that this is always looked for, especially in cases of pain in the eye, ear, or supra-orbital region, not otherwise accounted for.

The point to be emphasized in the nasal examination is the condition of the middle meatus and the nasal attic, if there is evidence of infection or impairment of ventilation and drainage in the anterior or posterior ethmoid cells of the nasal accessory sinuses.

An effort is made to see if the pain is due to retained secretion in the nose or whether it comes from a suppurative condition in the sinuses or ethmoid cells. If the opening of the sinuses are blocked by the swollen turbinates, the pain is due to negative pressure, but on the other hand, if the pressure is due to an accumulation of pus or muco-pus within the cavity which cannot drain through the natural opening the pressure is positive. The prognosis and treatment of these two conditions is so different and mean so much to the patient that careful discrimination and diagnostic acumen should be exercised. In some cases shrinking of the tissues of the middle turbinates and cleansing of the entire nasal cavity by thorough post nasal irrigation, followed by gentle suction is necessary to differentiate between a positive and negative pressure. A drop or two of thick yellow material in the anterior nares coming from the middle meatus does not indicate surgical interference.

CONCLUSIONS

Restrict history and examination records to the minimum consistent with clearness and comprehensiveness, so that another could take up the case with a sufficiency of knowledge from its inception. (Wurdeman).

Every case a bit of original investigation, and its study is like going from one place to another. We are concerned with the most direct route, the starting point being the patient's statement of complaint—but often close observation gives a clew to diagnosis before any statement is made.

"The bulk of the history and examination of every case is to ascertain the presence, rarity, stage, severity, special form and complication of some particular disease, and the good diagnostician, like a keen scented hound, catching the scent he is to follow, sticks to it, not concerning himself with cross trails and the system of both is like following a trail, sometimes getting off, but finding this out and getting back as quickly as possible when the mistake is discovered." (Edward Jackson).

No two cases are exactly alike, and our records of the history and examination are as individual as the case, or the investigator, and "the schedule of both history and examination must be modified to suit the individual case. (de Schweinitz).

THE HISTORY AND EXAMINATION OF THE PATIENT FROM THE PEDIATRIC VIEWPOINT

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Mr. Chairman and Members:

I desire to express my appreciation for the invitation to come before you, and I desire to thank you very sincerely for the honor.

When my good friend, Dr. Warnshuis, asked me to participate in this symposium, I found within myself a considerable degree of conflict. What are the essential points of difference in physical examination between adults and children? How does history taking differ when one approaches a speechless child or a garrulous adult? What organ or organ system should be investigated or dwelt upon? Should the time-honored textbook directions and cautions be reiterated and emphasized.

Perhaps we may pause a moment in order to get our bearings and note the direction in which we are going. In what sense is pediatrics a specialty? Why does pediatrics deserve a special place on this program? No matter what conclusion we reach, I think every one will agree that far-reaching results have been attained in the progress of this branch of medi-

cine. Students are at present better taught in diseases of children than at any previous period of medical instruction. Clinical facilities are more ample and research, investigation and learning in pediatric subjects have advanced knowledge to a high point.

We have added much to the general fund of knowledge in the accurate study of natural and artificial feeding of infants. By vigorous and organized efforts, the infant morbidity and mortality rates have been materially reduced in all civilized communities.

To return to our theme: In former days specialists were surgeons, internists, eye and ear, nose and throat devotees. Today surgery is divided into numerous branches—the urological, gynecological, neurological, otological, and other branches.

In medicine, there are specialists for the heart, lungs, kidneys, brain, spinal cord and nerves, those who treat disturbances of endocrine glands, and those who specialize in diseases of metabolism. So numerous are these, so technical and diversified, that one group barely understands the language of the other.

In contradistinction to this grouping and arrangement, the pediatrician in the children's clinic treat the entire child with all of his organs. It is not true, as has been derisively said, that the child's doctor specializes in soiled diapers and green stools. When the student visits the children's clinic, he sees patients with a variety of disorders, medical and surgical; diseases of the skin and special sense organs; diseases of metabolism, and that vast group of nutritional disturbances peculiar to infancy and childhood depending upon improper food. Here is a varied group of disorders, a field of general practice. In this clinic the student learns to follow the course of acute infectious disease from its inception to its termination, and also to study complications and sequelae. This should not be interpreted to mean that we do not welcome the specialist in the children's clinic; we are in daily need of the surgeon, the otologist and laryngologist, the orthopedist, the urologist, the ophthalmologist, and indeed every specialist who by special knowledge or technique can alleviate suffering or cure disease.

In the narrower sense of the term, the pediatrician may not be a specialist. He deals with many organs, indeed the entire organism of the child. I think no one will deny the advantages of special instructors and departments of pediatrics in medical schools. The pediatric clinic is the invaluable adjunct to such instruction. It is absolutely essential to teach the future doctor the art of treating sick children to recognize their ailments and diseases, and last, but not least, to learn the importance of the greatest gift of modern medicine to mankind, namely, disease prevention.

Numerous topics are considered and taught by the instructor in the clinic. He emphasizes the peculiarities of the child's organism, his reaction to various diseases at different periods of life. The development of the young organism is considered in its physiological and pathological aspect.

The hygiene of the infant and child is investigated and taught and is obviously of the greatest importance. The training of the child, the correction of habits, the interpretation of normality and abnormality, fall to the lot of the pediatrician or the pediatric teacher, and this knowledge transmits to his students.

Whether the pediatrician is to be considered as a specialist in the strict interpretation of the term is quite indifferent. By special training and long experience he becomes especially adapted to recognize disease in infants and children; he acquires knowledge of their disorders; he becomes an adept as a general practitioner in the diagnosis and treatment of diseases of children.

Finkelstein, in a recent publication, speaking of the personal fitness of the children's doctor, says, "One doctor acquires at the outset the correct method and proceeds with unfailing success; the second learns the art after long practice; and the third never acquires the art."

I presume that is true of almost everything in life.

To succeed in the examination and in the treatment of children, one must have a refined quality of human feeling, a keen sympathy, friendship and love for the tiny being, and more than all, he must know the vagaries, the weaknesses and the psychology of mothers. He must understand the elemental pedagogic and psychological procedures, so that he may counsel concerning the training of the child, interpret and advise the mother without causing resentment or unpleasant reaction.

To continue for a moment our discussion as to whether pediatrics is a specialty, the outstanding point is that formerly the management of the diseases of infancy and childhood was a byproduct of the obstetrician and internist. In more recent times when the study of children became a special object of interest, clinicians and laboratory workers were stimulated to make special researches, and the beneficial results are too numerous to be told in a brief record. No other department of medicine has made greater advances, nor has any other department contributed more to the total of human happiness.

If time permits I wish to consider one or two points in the physical examination. As a teacher of medicine, more particularly of pediatrics, for more than thirty years, I frequently have the feeling that as doctors we are wont to

forget our historic consciousness, if such exists. Medical knowledge should not consist of the novelties which have appeared on the printed page the last month or year or decade. Valuable observations in the diagnosis and course of disease as well as in the treatment were known to our ancestors. We have not greatly surpassed the discoveries of Laennec and Skoda in physical methods of auscultation and percussion.

The intern or recent graduate who has received much of his training in the laboratory or in the guinea pig kennels, would sometimes, at least, begin his examination by making a chemical blood test, or a Wassermann reaction, or a spinal puncture test, or determine the metabolic rate, or make an X-ray examination. This point has already been stressed by the previous speakers. It is obvious that this is fallacious. The patient's history should be obtained and then the patient should be examined. The examiner should exercise to the utmost his special sense organs. He should inspect, and the image which he receives should convey a real meaning, or at least should receive an interpretation. He should percuss gently and auscultate attentively. He should receive such information as comes to him from his sense of smell. The old doctors recognized smallpox and typhoid fever by the odor with an unfailing accuracy. Gangrenous diphtheria and noma are revealed by the odor, and an acetone breath may be the first suggestion of diabetic coma.

Lastly, the examiner should touch and feel. Feer, the distinguished professor of Pediatrics at Zurich, writes in his book on diagnosis, that he requires from his young assistants a record of physical findings before an instrument is used or a pin prick wound inflicted. I may add, after one has made his observations, and if circumstances permit, the physician should be allowed a few moments to sit quietly and *think,* because, after all, one should sufficiently compose himself so that he may put all his findings together and interpret them in the light of his knowledge and experience. Diagnosis is a thinking process, not a machine-made process. Most precious of all is good common sense, which very often helps the physician to make a very reasonable diagnosis.

After the preliminary interviews with the mother have terminated, the baby should be presented for inspection. If asleep, the baby should be viewed in its little bed; if awake, the baby should be undressed and held up for inspection. The experienced physician obtains much valuable information by mere inspection. A keratitis, hydrocephalus, rickets, scurvy, idiocy, infantile cerebral palsy, and a great variety of diseases are revealed by simply looking at the patient.

The severity of the illness is frequently recognized, the frequency and character of respiration will often indicate a story and enable one to make a presumptive diagnosis, which is confirmed by more extended physical and laboratory examinations.

Time will not permit a consideration of all methods of examination. The history of auscultation and percussion has been made familiar by the writings of numerous authors. The technique of these methods is amply told in every textbook dealing with the subject.

I wish briefly to refer to one of the most frequently employed and probably the oldest of all methods of physical examination, namely, palpation. In examining historic records, one finds no account of the discovery of this method. Like inspection, it is a natural, almost an instinctive art. One looks, then feels if his curiosity is sufficiently aroused.

The ancient physicians describe the perceptions obtained through the sense of touch. A mass was hard or soft or fluctuating, one learns from Hippocrates. A phlegmon was hot or pulsating. Therefore we conclude that the art of palpating is as old as the race of physicians who have practiced in the civilized world.

In the eighties of the last century, the knowledge of palpation included almost exclusively those conditions which prevailed in tumor diagnosis, and how primitive these diagnostic methods were may be realized from an expression quoted from Billroth, who said that whenever he opened the abdomen for an acute condition he was happy if he met an abdominal affection instead of a pneumonia or thoracic afection—a condition which has already been emphasized by the previous speakers.

The same thought is expressed by a Russian surgeon, Slifosowski. When asked to which organ a tumor belonged, he replied, "It belongs to the abdomen."

Later on, the internists awakened to the desirability of making pre-operative diagnoses, and they attempted to apply palpatory diagnosis in the recognition of abdominal tumors. Among those who made pioneer studies in palpation were Rosenheim and Minkowski, though it should be said that most internists made their daignosis of intra-abdominal conditions after exploratory laparotomy had been performed.

Surgeons as a rule were in the same position as the internists with reference to abdominal diagnosis. The first one who attempted to systematize and organize knowledge in this direction was a German surgeon, B. Pagenstecher. He described the palpatory peculiarities of tumors of various abdominal organs. He also was the first to inflate the stomach and intestines in order to localize tumors.

Up to this time, no one had perfected palpatory methods in diagnosis in abdominal conditions of the alimentary tract other than the method used for detection of tumors.

Glenard and Obrastzow were the first who attempted examination of the colon by palpatory methods, and Hausman was the first to elaborate them for practical use. According to Hausman, the cecum, the appendix, the pylorus, the greater curvature, might be felt under certain circumstances. If your reaction is the same as mine when I first encountered these writings, you will say under your breath, "I don't believe it." But wait. He claims to have done this, to have palpated these various abdominal viscera.

About this time Glenard recognized for the first time that nephroptosis was a part of general visceroptosis. He also noted that the colon moved with respiration and could be passively pushed upwards and downwards, but not laterally. He also was able to show that the transverse colon could be differentiated from other organs in the abdominal cavity, such as the stomach, pancreas, or intestines.

Glenard's observations were not taken seriously, or at least were not confirmed by his contemporaries.

Obrastzow, however, worked independently of Glenard, and confirmed and amplified his findings. Obrastzow succeeded in palpating the normal colon in a considerable number of cases. He could feel the transverse colon in 33 per cent of cases, the cecum in 53 per cent, and the sigmoid in 40 per cent. Obrastzow's conclusions were not generally accepted. Most of the textbooks on internal diagnosis do not mention his method.

Hausman, in discussing the findings of Glenard and Obrastzow, regrets that so few have been willing to accept these methods in routine abdominal examinations. He thinks that physicians would be more ready to receive a new laboratory method than one that could be so easily applied as palpation and particularly abdominal palpation.

I have no doubt that the ability to palpate well is to a large extent an individual endowment. The sense of touch and the muscle sense will explain the genius of the virtuoso, who has shown in his early childhood inherited ability at the piano or with the violin or other musical instrument.

This same refined muscle sense probably explains the talent for drawing, painting, sculpturing, or indeed, anything which requires touch or muscular movement. On the other hand, the sense of touch and the dextrous use of small muscles may be acquired, notably, the blind learn to read by using raised letters. There are numerous instances where children of mediocre talent are taught to paint, draw, and mould in clay. It seems, therefore, that the ability to palpate depends to a degree upon the natural dexterity and the inherited delicacy of touch and muscle sense. On the other hand. the art of palpation may be acquired by nearly every one by diligent and thoughtful practice.

Obrastzow and Hausman have formulated some general directions. It is important that the examiner should be in a comfortable position. The familiar advice appears in every text that the examiner's hands should be warm. The patient should be in the recumbent position. Hausman advises that the head be pressed deeply into the pillows. The legs should be outstretched. It is of no advantage, the best authorities say, to have the thighs flexed on the abdomen. The difficulty in abdominal palpation is increased by the interference of the drawn up thighs, even if in some instances there is complete relaxation of the abdominal wall.

Hausman has suggested the method of gliding and deep palpation. By adopting this procedure, he claims he is able to palpate the large intestine, and also to recognize portions of the stomach. In certain instances he can feel the appendix.

The most important factor is overcoming the resistance offered by the abdominal wall. Great force should not be used. Indeed, forceful efforts do harm and affect the procedure adversely, because they cause muscular contraction and increased resistance.

The utmost attention should be given to the respiratory phase. During inspiration, particularly in abdominal breathing, the muscles contract and the resistance increases. The important point is that in performing deep palpation, the fingers should come to complete rest during inspiration. At the moment when inspiration ceases and expiration begins, the maximal relaxation occurs. During this period of relaxation, the fingers may be pushed deeply into the abdominal cavity, though the manipulation should not be too energetic nor too rapid. It should be stated, however, that the maximal resistance may vary in some individuals. In rare instances it may occur during the inspiratory phase. In every case, one should find the relaxing period, and this phase should be used at the opportune time or moment.

Hausman gives the following directions for palpating the greater curvature of the stomach which may serve as an example of his technique. He introduces one or more fingers into the epigastric region, attempting to penetrate as deeply as the presenting surface of the spinal column. Then he makes sliding movements from above downwards, that is, in a transverse direction to the greater curvature. These sliding movements are made in rapid succession in both directions, that is, from above downwards and from below upwards. They must be continued until the fingers are felt to sweep over the greater curvature. The deep palpation should be conducted during the expiratory phase. With a similar technique, Hausman claims to have palpated the pylorus in adults,

also the swollen or hypertrophied pylorus in children.

Several cardinal points are stated which express Hausman's technique of palpation. The manipulation should be conducted first, in the right direction; the long axis should intersect at right angles the area of the digestive tube to be palpated; second, in the right place, that is where the suspected region is located; third, at the proper depth; fourth, at the right time, that is, during expiration.

Eliciting tenderness is an important factor in palpation. There has been much discussion as to whether the abdominal pain and tenderness are produced by inflammation in the deep lying organs or whether they are purely cutaneous according to Head.

Deep palpation is usually impossible during an acute attack of appendicitis or any acute infection of the abdominal organs. In some cases of acute appendicitis, deep palpation may be performed if only a slight amount of force is used, and if one proceeds cautiously without producing great pain.

In the so-called chronic appendicitis, palpation has more value as a diagnostic measure. Hausman maintains that it is sometimes possible to feel the diseased or enlarged appendix, and also to elicit deep-seated tenderness which may be most marked in the ileocecal region, though occasionally the pain is felt in other places, such as the hepatic region, the epigastrium, the left side of the abdomen, or even in the back.

It need hardly be mentioned that palpation at first should include the superficial portions of the abdomen, and finally the deeper portions should be explored.

Distention of the abdominal cavity with gas or fluid, the accumulation of food in the stomach, the pressure of fecal masses in the large intestines, or the distention of the bladder with urine are sufficient at times to defeat the most expert in palpation.

In nervous adults or in children in whom the slightest touch causes, reflexly, contraction of the abdominal muscles, Obrastzow recommends that the examiner should press on the side opposite the one to be examined. This procedure causes the contraction of two areas; the site which is to be examined tends to become relaxed somewhat and enables the examiner to press more deeply into the abdomen. As a matter of fact, this manipulation does not always succeed.

It is sometimes difficult to differentiate voluntary contraction of the abdomen from contraction of the muscle due to intra-abdominal inflammation. In the latter case, the muscles stand guard against the production of pain. Finkelstein recommends that the volar surface of the middle finger be placed on the abdomen in various regions and, with the middle finger of the other hand, pressure be made over the nail of the palpating digit. Pressure should occur at the moment of expiration, and light vibratory thrusts should be made. In this way the various regions of the abdomen are investigated. In those instances where the muscles are standing guard, no perceptible impression is made on the rigidity. Where the contraction is due to fear or nervousness, the muscles yield on moderate pressure.

It may be necessary in different cases to anesthetize children to palpate effectually. Palpation by rectum in children as well as in adults may yield valuable information, particularly if the lesion is located in the pelvic area.

Gubergritz suggests that the patient's position be changed, especially in difficult cases. For example, if there be considerable ascites and the liver is to be felt, the patient should be turned on the left side. In this position one frequently succeeds. Israel suggests that if the left kidney is to be palpated, the patient should be placed on the right side. He says that the kidneys approach the midline and descend slightly and may be palpated in this position. Similarly the spleen may be felt if the patient is lying on the right side.

Gubergritz found that if he wished to palpate the right hypogastric region, he met with considerable success if he placed the patient on his left side. In this way he was able to feel the ileum, spleen and descending colon in cases where he had previously failed. He thinks that not only the ileum, cecum, ascending colon and appendix may be felt in this left lateral position, but also the sigmoid and descending colon, under some circumstances. He also claims that patients suffering from chronic appendicitis give no evidence of tenderness when examined in the dorsal recumbent position, but if the same patient is examined in the left lateral position, pain may be elicited to the right of the right rectus muscle.

Rosenstein in 1922 also found that appendiceal tenderness was more easily elicited in patients who were placed on the left side.

Gubergritz also reports the examination of patients in the intervals between attacks of biliary colic. Those who were examined in the dorsal recumbent posture showed no tenderness, while in those who were examined in the left lateral position, tenderness was elicited in the liver in the majority of cases.

Palpation of the abdominal organs is an art that should be learned and taught. One who has a skilfull hand and who reflects and thinks about his findings will make the most accurate diagnoses.

THE HISTORY AND EXAMINATION OF THE PATIENT FROM THE PUBLIC HEALTH VIEWPOINT

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The preceding speakers have all emphasized the history and examination of the patient from the standpoint of his own personal health; in the public health discussion of this topic the relationship of the individual to the health of the community is to be emphasized. When an individual comes to see a physician it is usually because of some ailment, the cure of which, however, is only one of the duties of the physician. As is becoming more and more recognized, he has the responsibility of keeping his patient free from disease and of protecting the health of the community at large.

Keeping the well baby well has for twenty years been the slogan of the pediatrician. The prenatal clinic, the infant welfare station, the pre-school clinic, and school examinations were started to prevent diseases that in their end stages we could not cure. The best example of this is the practical elimination of the peak of infant mortality during the months of July and August.

The history of the patient from the public health viewpoint is to a great extent an epidemiologic study of the source of the infection or intoxication. Depending on the type of disease, the history may be concerned with individuals, such as is the case in the acute infectious fevers, ringworm, lice, and scabies; again the milk supply and other foods deserve attention, as in scarlet fever, diphtheria, septic sore throat, tuberculosis, or typhoid; in typhoid and dysentery, the water used for drinking purposes should be investigated; severe throat and ear infections may be spread through crowded beaches and improperly controlled swimming pools; pellagra, beri-beri, scurvy, rachitis, and school anemia may necessitate investigation of the dietary regime of institutions; trades will enter into the history of cases of lead and analine poisoning and silicosis.

The co-operation of the physician with the health department in all cases of an infectious nature is as much his duty as is the relief of the suffering. It is of necessity impossible for the busy practitioner to make complete epidemiologic studies of each case, but he can obtain the information at the earliest possible moment and by co-operation can prevent the spread of infection beyond the secondary cases. The history of exposure is of even more vital importance when one remembers that certain diseases can be prevented even after exposure. Smallpox, diphtheria, measles, possibly scarlet fever and pertussia may be prevented by vaccination or serum treatment. The prevention of measles in infants and in young children with tuberculosis by convalescent serum has been a great factor in the reduction of the mortality from measles. Our concern is not so much with the patient as it is with those individuals who have come in contact with him. The history acquired from the patient will be a factor in preventing the spread of the disease.

The examination of the patient may be undertaken from two points of view: during an epidemic mass examination may be necessary; secondly, the well child and adult should be examined for signs of disease before symptoms are sufficiently evident to warrant his seeking medical aid.

In mass examinations we are usually dealing with rather simple examinations for a single disease, for example, direct inspection and obtaining cultures from the nose and throat in diphtheria, and the inspection for scabies, lice, or ringworm in schools where the infections are present. The recent use of the precipitin reaction advocated by Rosenow in infantile paralysis is a similar attempt. In the infant wards of hospitals search for gonococci must often be made to isolate carriers and prevent further spread of the disease. Mass examinations may be readily carried out by physicians with relatively little special training.

The examination of the healthy child or adult is a very much more difficult procedure and requires a different attitude of mind than that of the practitioner treating disease. I can never forget the physician who was conducting one of the early infant welfare stations in Chicago and who, after three months, was still surprised when a mother told him her baby was not sick. For about thirty years periodic examination of the normal infant and child have been carried on in Europe and this country, with the result that certain diseases, cholera infantum in particular, have practically disappeared in the epidemic form. Atrophy or malnutrition of the infant, thanks to these periodic examinations, is a rarity instead of the constant result of improper care. The search for defects and foci of infection before they are manifest symptomatically is, to my mind, often a more difficult medical problem than the diagnosis of an evident disease.

First of all, a very definite knowledge of what is normal and ability to recognize slight deviations from the normal is required. The early recognition of rickets, scurvy, and feeding disturbances, the danger of infected tonsils and adenoids, the bad effects of high arched narrow palates on nasal breathing, the effects of dental caries, the many postural defects, flat feet, improper habits of eating, sleeping, and playing are often found by careful examination and by thorough history taking in the apparently normal child.

The same would be true of the adult if he were presenting himself for examination at regular intervals. The life insurance companies have realized the importance of periodic examinations and give them free of charge to their policy holders.

The so-called public health attitude of mind is one that the medical profession as a whole must develop to a much greater extent. Occasionally one still hears that this will curtail the work of the physician. It is self-evident that it will increase his work, provided he is equipped to do it. Just as prevention of disease is the major part of the work of the pediatrician, so will prevention play an increasing role in the work of the general practitioner.

CYSTS OF THE PANCREAS WITH REPORT OF A CASE

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Cysts of the pancreas are rather rare affections. When we think of the many number of operations performed upon the abdominal viscera every day we begin to realize how comparatively few cases of pancreatic cysts are encountered. Judd has found only forty-one cases in the records of the Mayo Clinic. Oser was able to collect records of 132 cases and in addition to this, Willis adds fifty-five cases in his search of the literature. Korte, who has done extensive research work along this line, has collected one hundred and twenty-one instances.

Having recently encountered a rather interesting case of pancreatic cyst, I was prompted to look up the literature on the subject. In view of the rarity of this affection and because there is still much to be learned about cysts of the pancreas, I will review in brief what I have gleaned from the literature and incidentally report in detail a case which came under my observation.

There are several types of pancreatic cysts. By far the most frequent is the retention cyst, originating in the substance of the gland. This is formed when an obstruction to the outflow of the pancreatic secretion causes a retention of fluid with the consequent dilation of the ducts. This may be caused by pressure from pancreatis with stricture of the duct, by calculi in the duct, by pressure from without as in gall stones, by tumors of the neighboring organs, or by a combination of compression from without and obstruction within. The most frequent cause is chronic interstitial pancreatitis. In all cases of pancreatic cyst, there is present an interstital pancreatitis. Whether or not this is the cause or effect, it is difficult to state. It is pretty generally recognized now that gall bladder diseases and pancreatic cysts are closely related. In the forty-one cases collected by Judd, the association of gall bladder disease was present in seventeen and he has cured chronic pancreatitis by drainage of the gall bladder. Ballin reports a case of pancreatic cyst following cholecystectomy for gangrenous gall bladder. Ballin says in "disease of the gall bladder and its relation to the pancreas there are two factors; viz., stasis and infection. We know that stasis is a potential factor in gall bladder disease and is of great pathologic significance." Ballin states that "patients with pancreatic and biliary fistula without actual obstruction in the ducts have been cured by eating every two hours. This brings about a practically continuous flow of bile into the duodenum, and hence allows of no retention." Archibald has produced pancreatitis by allowing bile to flow intermittently into the pancreas. Thus we see that by the tendency it has of producing a chronic pancreatitis, the gall bladder stasis and infection indirectly has some etiological significance.

A few pancreatic cysts are of the proliferated variety; i.e., cyst-adenomata. They form as do these new growths of the thyroids or ovary. Primary carcinoma is rare, but when found it is secondary to these cyst-adenomata.

There have been a few cases of congenital cysts reported which are usually accompanied by congenital cysts in other organs—the so-called congenital cystic disease.

Hydated cysts are rare. Two are caused by the taenia echinococcus and are prevalent in countries where people live in close contact with dogs, as in Iceland and in many sections of South America. Manuel Albo, of Monte, video, has reported several interesting cases of this type.

Judd reports a dermoid cyst of the pancreas that contained hair and one tooth.

Pseudo-cysts are next in frequency to retention cysts. They are those which are in relation to the pancreas, but are not necessarily of pancreatic origin. They are due as a rule to an injury of the pancreas or its capsule, resulting in a hemorrhage or the leakage of pancreatic fluid into the lesser peritoneal cavity. It is almost impossible in some cases to distinguish these from true cysts. It was thought at one time that an examination of the contents would differentiate them, but this is of relatively little value in establishing a diagnosis. Opie says:

> The presence in the cystic contents of one or more enzymes resembling those of the pancreas was formerly believed to give proof that a cyst had its origin in the pancreas. Not infrequently one or perhaps all of these enzymes are absent in the contents of the pancreatic cysts, whereas fat splitting diastatic or proteolytic enzymes are found in fluids not derived from the pancreas.

Cysts of the pancreas do not produce a definite syndrome and are difficult to diagnose. The early symptoms are trivial. Patients complain of fullness and distress after eating, pain varies and is of no diagnostic value, nausea and vomiting occasionally occur but are not common. Frequently there is considerable loss of weight. There is moderate anemia, but nothing characteristic about the blood picture. The symptoms are generally due to pressure on the neighboring organs, as the stomach, the diaphragm, bile duct, etc. Jaundice is rare. Glycosuria due to pancreatitis is sometimes present. On physical examination we commonly find, generally to the left of the median line, a tumor which is spherical in shape, smooth, and tense to the touch, usually fixed unless attached to the tail of the pancreas when it is slightly movable. They vary in size, and in neglected cases may occupy the whole abdominal cavity even extending into the pelvis. They have been mistaken for ovarian cysts the true nature being discovered at operation. In making a diagnosis flouroscopic and X-ray pictures are a great aid.

In regard to treatment excision of the cyst would seem the most desirable, but on account of the anatomical situation over the abdominal aorta, vena cava, and other vital structures, and with the accompanying adhesions to other organs, this is only feasible in rare and selected cases. The operation of choice is aspiration and drainage. This almost always leads to a permanent cure and has a low mortality. The technic of this operation will be described in the case report.

The case that I have to report has some very interesting features. While time will not allow me to go into detail in the analysis of the various symptoms, I will attempt to give a sufficiently comprehensive report with the hope that I may contribute something that may stimulate someone more scientifically equipped than I to carry on such research that will add to our knowledge of this rare malady. In view of the dearth and obscurity of early symptoms in these cases, I feel that anything we encounter that may throw a gleam of light will be worth while if it enables us to detect the pathological condition present before it produces such a profound effect on the general system. The recitation of the symptoms found in every case will at least make us bear in mind the possibility of a cyst of the pancreas in our routine examination of the abdomen.

CASE REPORT

M. S.—Female, widow, aged 59 years, admitted to the hospital May 31, 1925—discharged July 1, 1925.

History—Has had six children, all full term and all deliveries normal, no miscarriages. Menstral history negative. Normal menapause about ten years ago; no bleeding since.

About five years ago had a severe attack of pain in the epigastrium. Pain came on suddenly and was accompanied by slight fever, nausea, vomiting, and was followed by distinct jaundice, which led to the diagnosis of gall stone colic. This attack lasted for several days. Since this attack patient has had several others that were not so severe and were not followed by such marked jaundice. Ever since the first attack patient has noticed a feeling of heaviness and pressure in the epigastrium, which has become more and more noticeable, and at the present time interferes with respiration. About seven months ago patient had a badly infected finger and at this time the doctor in attendance found sugar in the urine. Patient states that she then noticed that she was thirsty most of the time and that although she ate more than usual she was losing weight. She had some slight pruritis at this time. She was put on a slightly restricted diet and the symptoms slightly cleared up for a time, though she continued to lose weight. About three weeks before admission to the hospital she sought treatment on account of dryness of the tongue, and examination disclosed a mass in the epigastrium and a marked reaction for sugar in the urine. Patient stated that she was hungry most of the time, drank large quantities of water, felt very weak most of the time, complained of "trembly feeling", slight dimness of vision, a dry mouth and constipation. During the last seven months she has lost thirty-eight pounds.

Physical Examination—Woman apparently about 65 years old, considerably under nourished, skin dry, hair dry and harsh, pupils equal, and active, slight icteroid tinge of conjunctiva, marked arcus senilis. Artificial teeth only; tongue slightly swollen, very dry, deeply red and with slight white coating at back.

Throat—Negative. Neck—negative. No enlargement of the cervical glands.

Chest—Lungs, clear; no enlargement of heart; soft blowing systolic murmur heard at apex, not transmitted.

Abdomen—Rather marked fullness in epigastrium. On palpation a large, somewhat irregular mass extending from high up under the left costal margin across the upper part of the abdomen to about the right nipple line. The lower limit of the mass is about one finger breadth above the umbilicus; the lower border of the mass somewhat resembles the greater curvature of the stomach. The tumor feels hard, no fluctuation can be made out, feels very much like a carcinoma of the stomach would feel but is not movable.

Extremities—Negative, no oedema.

Reflexes—Normal, both superficial and deep.

Urinalysis—Color, pale amber, Sp. Gr. 1036, Albumin 1 plus; Sugar 3 3/5 per cent, Glucose output in twenty-four hours 38.8 Grm. An occasional hyaline cast and finally granular casts, a few pus cells.

Blood Examination—Reds, 4,560,000; whites, 6,600.

Differential Poly.—67 per cent, large mono. 4 per cent, small lymph. 24 per cent.

Transitional—2 per cent; Barophiles—2 per cent; Eosinophiles—1 per cent.

X-Ray Plates—Stomach after barium meal—Immediate shows contraction across the stomach; five hours afterwards, shows stomach completely empty.

Flouroscopic Examination—Shows filling of the cardiac end of the stomach after which barium can be seen trickling past the obstruction into the pyloric end.

Treatment and Notes—June 2, 1925, patient put at rest in bed and given ordinary diet for twenty-four hours containing 38.8 grm. glucose..

June 3, Patient excreted 13.4 gm. on diet containing 50 gm. glucose.

June 4, patient excreted 11.5 gm. on diet containing 50 gm. glucose.

June 5, patient excreted 2.8 per cent on diet containing 50 gm. glucose.

June 6, patient excreted 2.6 gm. on diet containing 50 gm. glucose.

June 7, patient excreted only faint trace.

June 9, patient sugar free.

June 12, diet increased to 64 gm. glucose—still sugar free.

June 16, urine still sugar free. Prepared for operation by giving 50 gm. glucose by mouth followed immediately by 15 units of insulin by hypodermic and morphia sulphate gr. ¼.

Operation under local anaesthesia—A left rectus incision was made over the most prominent part of the tumor, the rectus muscle was retracted to the left, the peritoneum opened and the stomach presented. The gastro-colic omentum was torn through when a large, smooth, tense walled tumor was felt that seemed to spring from the body of the pancreas. A Luer syringe with a long needle was inserted and fluid withdrawn, demonstrating the cystic nature of the neoplasm. The tumor was packed off from the abdominal cavity with moist pads. Three pints of dark brown fluid were withdrawn through the trocar, an incision was made in the cyst wall, the cavity was swabbed out, the cyst wall was sutured to the parietal peritoneum, a 3/8 inch drainage tube closed in a double purse-string suture and cyst drained through stab wound as in gall bladder drainage. Abdominal wound, closed in layers without drainage. Vasaline gauze, sterilized, placed over and around the wound to protect the skin from a possible leakage of pancreatic fluid. The patient had no shock following operation and was able to take liquids immediately returning to her bed. The day following her operation there was present a moderate amount of sugar, with a sugar free urine on the third day, when she was taking 67.6 gm. glucose. At the end of the first week she was given 82.6 gm. glucose and at the time of discharge from the hospital, five days later, it was increased to 97 gm. her urine still remaining sugar free. The diet is still being gradually increased. We have not yet reached the limit of the patient's tolerance. The diet will be increased gradually and frequent examinations of urine made. The sutures were removed on the seventh day, the wound being entirely healed and clean. On the fourteenth day as drainage had ceased the tube was removed, and in two days the stab wound was healed. The patient at this time was eating and sleeping well and expressed herself as feeling stronger and better than she had in several years.

The case is Interesting from the fact that her symptoms were so vague that it was almost impossible to get a lead to diagnosis, until during the course of examination a mass was felt in the upper abdomen, the presence of which she herself did not even suspect. We are also struck with what accuracy the X-ray and flouroscopic findings checked up with our findings on operation. Another feature that is worthy of mention is the rapidity with which her tolerance to carbohydrates has changed since the operation. This is evidently one of those cysts of the pancreas accompanied by a true diabetes. The rapid subsidence of the drainage with perfect healing is rather unusual.

A NEW TREATMENT FOR ASTHMA AND THE RELATED ANAPHYLACTIC DISEASES*

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ANAPHYLAXIS

In order to understand the present conception of the etiology of asthma, it is necessary to recall some established facts concerning the phenomenon of anaphylaxis. When a small dose of any foreign protein is injected into a guinea-pig and 10 to 14 days later a second and about 100 times more concentrated injection with the same protein is made, the animal instantly develops symptoms of distress, as dyspnea, cyanosis, jerking of the limbs, spasms of the thoracic musculature, followed by paresis and death. To this phenomenon Richet (1) applied the term anaphylaxis, or supersensitiveness. Anaphylaxis can be avoided in desensitizing the animal against the respective proteins, i.e., by injecting repeatedly small amounts of increasing doses of the protein. But even without desensitization, some animals do not present the anaphylactic reaction described, due to the fact that some species and families are not susceptible to certain proteins. (Lewis and Loomis, 2). This inconstancy of result has been a great obstacle in experimenting on this subject.

A great many investigators have attempted to explain the mechanism of anaphylaxis, accomplishing, however, only limited results. It is believed, (Richet, Besredka, Nicolls, Pirquet, 3), that after the first injection a toxic substance, called sensibilisin, albuminolysin, allergin—some authors incorrectly apply the term antigent—is formed, which produces either a protective reaction, (immunity), or an injurious one, (anaphylaxis), depending on various factors which cannot be explained at the present time. (Weil, 4). The organ which has been generally held responsible for the production of this substance is the liver. Recent investigations, however, (Hektoen, 5), brought forth evidence that the spleen and the bone marrow (Motahashi, 6) are intimately concerned in the process of antibody formation. In view of the outcome of these investigations, some (Wells, 7), are inclined to believe that the cells of the reticulo-endothelial system,

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which are distributed in the liver, the spleen, bone marrow, and the lymphatic tissue, are the location where the anaphylactic substance is formed. Petersen (8) supported this conception in showing that blocking of the reticulo-endothelial system, by means of intravenous injection of india ink, protects the animal from anaphylactic shock.

ANAPHYLAXIS IN THE HUMAN

If we apply the phenomenon of anaphylaxis to the pathology of the human organism, we see that the immediate reaction to the second injection of foreign protein described above corresponds very closely to a disease first reported by Pirquet (9), called serum sickness. This disease manifests itself by tenderness at the site of the injection, urticaria, erythematous or morbilliform eruptions, pyrexia, swelling of joints, edema, slight albuminuria, distension of the lungs resembling emphysema, convulsions, and even death. In differentiation from this artificially produced allergy, there is a group of diseases which has been quite definitely found to be of allergic character. This group embraces bronchial asthma, hay fever, urticaria, angioneurotic edema, eczema, vasomotor-rhinitis, vasomotor conjunctivitis, and some kinds of gastro-intestinal and bladder disturbances which are attributed to edematous swelling of the mucosa of the intestinal tract and the bladder. In spite of the great progress in the understanding of their pathogenesis, we are still far from having a satisfactory insight into their mechanism. We do know that the eliciting substances for these conditions, the sensitizing proteins, are constituents of certain foods, bacteria, (including tubercle; bacillus, Stuhl, 10), animal mal and human emanations, and pollens. However, non-protein substances, such as quinine, quinindine ipcachuana, antipyrin, potassium iodide, and even physical agents, as heat, humidity and the changes of barometric pressure are involved in the causation of the anaphylactic diseases. According to Duke (11) the above named physical agents may produce the breaking up of body proteins and therefore indirectly cause anaphylaxis.

An asthmatic attack is believed to be brought about in the following manner. A lack of antibody to the proteins of either one or a group of the above named agents causes a change in the vago-sympathic equilibrium (Galup, 12), resulting in spasm of the bronchial musculature, edematous swelling, an "urticaria", of the mucous membranes of the alveoli, (Baagoe 13), and secondary development of the signs of emphysema.

Two features characterize the asthmatic condition, first, a change in the ion arrangements of the body (Pottenger, 14). A deposition of calcium salts takes place in the lung alveoli. Clinically this is featured by the finding of Charcot Leyden crystals, which consist of calcium phosphate and calcium carbonate, as pointed out by Storm van Leuven and Nyik (15). In the blood the calcium and magnesium salts are, concomitantly with this phenomenon, diminished in anaphylaxis. (Azzi, 16).

The other characteristic sign of the asthmatic state is eosinophilia in the blood, and an accumulation of eosinophile cells in the sputum. The very interesting publication of Mayr and Moncorps (17) has thrown new light on the important role taken by the spleen in the origin of the eosinophile cells. These authors conclude that diminished function of the spleen increases the production of eosinophile cells, whereas disapearance of these cells is brought about by hyperfunction of the spleen. The bearing of this fact on our conception of anaphylaxis is evident. It also should be mentioned that the diminished coagulability of the blood, a symptom described in anaphylaxis by Kraus and Biedl (18), points to the spleen as a causative factor in asthma.

THERAPY OF ASTHMA

According to the described mechanism of an asthmatic attack, the principles involved in treatment are (1) desensitization, (2) removal of the sensitizing substance, (3) re-establishment of the vago-sympathico equilibrium.

1. Desensitizing is facilitated by first determining the sensitizing substance through skin tests, and then injecting small amounts of the causative proteins in increasing doses. This is successfully accomplished in hay fever with the proteins of the pollen group, but for asthma the application of this principle has not yet fulfilled the hopes of clinicians. Quite recently Storm-van Leuven (19) reported on experiments with desensitization, using injections from extracts of the condensed air of Rotterdam and other Dutch cities. This work is still in progress. In a large percentage of cases, tuberculin treatment is effective, since a great many asthma patients are primarily afflicted with tuberculosis. (Storm van Leuven, 20). This treatment can therefore be considered as desensitization against tuberculo-toxins. Vaccine treatment has decreased in popularity among clinicians. (Rowe, 21). Its effect seems to be limited to the cases of pure bacterial anaphylaxis. It is also believed that the non-specific proteins, as pepton milk and others, have little effect in desensitizing.

2. As to removal of the sensitizing agent, consideration has been given to dietetic instructions, discarding the skin-positive foods from the diet, removal of offending articles, such as mattresses, feather pillows, woolen clothing, prevention of contact with certain animals, and

with human beings to whose emanation the individual may be sensitive. To this latter method particular attention has been given by English clinicians. Where bacterial infection is responsible for asthma, removal of the sensitizing bacteria by eradiation of the focal infection, especially in nose, sinuses, and throat is of great importance. With these methods Rowe recently reports approximately 90 per cent cures among 234 cases.

3. In order to recognize the vago-sympathico equilibrium adrenalin injections, often combined with atrophin and intravenous calcium chloride injections, are of great benefit during the attacks. These measures are merely symptomatic. In order to relieve the bronchial spasm Kummel (22) recently advised resection of the cervical sympathetic ganglion. The results with this method are still doubtful. The value of iodides, an entirely empirical remedy, is very questionable.

Among all these more or less problematic means in the treatment of anaphylaxis, desensitization seems to be the one which approaches most closely the etiology of this disease. Theoretically, the ideal treatment would be a method by which the body would be enabled to form actively enough desensitizing substance to prevent the anaphylactic reaction. This is the guiding idea which the writer has in view in carrying out the studies on X-raying the spleen in the anaphylactic diseases.

IRRADIATION OF THE SPLEEN

If we believe in a lack of antibody to the sensitizing substance as the cause of asthma, a theory for the support of which there is increasing evidence among serious investigators, and if we consider the diminished function of the reticulo-endopheliol apparatus as the cause of this lack of antibody, we can expect results by stimulating the function of the spleen. Such a stimulation is possible by giving small X-ray doses. There are authors (Schilling, Klewitz, 23) who successfully irradiated the bronchial glands for relief from asthma. In the opinion of Groedel (24) the results obtained by this method are possibly due to divergence of secondary rays to other parts of the body, especially spleen and liver. In a further perusal of the literature, it has been found that in 1920 Drey and Lossen (25) reported the accidental cure of an asthma patient after irradiation of the spleen, which had been performed on account of a leucemic condition. Groedel (24), who took up this treatment, reports that among 71 cases treated, all but 15 were cured.

The question comes up, how much damage can be done to the organism by giving small X-ray doses to the spleen. Let us think of the disorders which can arise from a disturbance of the hemopaietic function of the spleen. We have to consider that the neighboring organs, especially the small intestines, are very sensitive to X-rays.

In recent years irradiation of the spleen has been widely used in leucemia and in the hemorrhagic diseases. As a means to control hemorrhages it has already been taken over into the armamentorium of the general practitioner, in some countries. After a careful search of the lecturer the writer was unable to find any case on record which was badly influenced by this treatment. Among the animal experiments done in order to determine the possible in effects of X-rays over the spleen, the writer refers to the work of Harbinson (26), who failed to find any pathology in post mortem and clinical studies on rabbits which received doses of X-ray many times larger than administered in the following studies on humans.

RESULTS

Nine children with bronchial asthma and one child with urticaria were submitted to a very careful history and physical examination. Sputum examinations for Charcot crystals, eosinophile cells and Curschman spirals, X-ray examinations, protein skin tests, blood pictures for eosinophilia, in some cases blood calcium determinations, have been made in order to substantiate the diagnosis. Most of these tests were checked carefully after the treatment. If a child was seen during an acute attack, pharmaco-dynamic tests have been performed by injecting adrenalin and observing its value in relieving the attack. According to the degree of relief by adrenalin, the marks +, ++ and +++ respectively, are used in the chart -1-. No other treatments have been given besides the application of the X-ray. Details on the X-ray technic applied are given elsewhere (Waldbott, 27).

Among the ten patients treated, six had no more attacks after the X-ray treatment. All but two were submitted to only one exposure. Patient 2 had two more seizures after the first treatment, but was relieved completely after the third exposure. Child 3, has not been benefitted by the treatment. A repeated X-ray examination revealed hyperplasia of the thymus gland. This condition was cured afterwards by X-rays over the thymus. Most of the children were seen quite recently for re-examination, except patients 8 and 9, who could not be located.

If we therefore exclude from our series patient 3, with the thymus hyperplasia, and patients 8 and 9, who did not return, we can say that among the seven properly treated children all but two have been entirely cured during the time of observation. One of these two patients

Case No.	Age	Sex	Anaphylactic History	Asthma for	Attacks Frequency	Skin Tests Positive	Eosinophilia	Dermatographismus	Response to Adrenalin	Associated Findings	Last Treatment	Number of Exposures	Result	Comment
1. H.D.	6½	M	Urticaria 3 times, Vasomotor Rhinitis	4 years	Once in 1-2 weeks	Milk Casein Wheat Egg	4%	+	+	Some carious teeth	Sept. 25, 1924.	1	No asthma since last treatment	
2. J.A.	6	M	Frequent Vomiting, especially when eating vegetables	1 year	1-2 a week	Cabbage Carrots Veal Chicken	9%	++	++	Pyorrhea; carious teeth	Nov. 12, 1924.	4	No asthma since last treatment	Skin reactions negative after 4th exposure
3. M.T.	2½	M	Eczema when 4 Months old	1½ years	Once every 2n or 3d day	Neg.	8%	Neg.	None	Slight thymus enlargement	Jan. 15, 1925.	1	No relief until treated over thymus	
4. T.F.	1½	M	Eczema when 3 Months old. Frequently Urticaria	1 year	1-2 a week	Egg Rye Beans Tomatoes	11%	++		None	Jan. 20, 1925.	1	Relieved for 3 months	Will have further exposures.
5. A.T.	10	M	Urticaria, 3-4 Years ago	3 years	1-2 a week	Neg.	8%	++		Lues congenita	March 25, 1925.	1	No more attacks since treatment	Started antiluetic treatment 4 weeks after exposure
6. J.R.	9 Mo.	M	Eczema, when 1 year old	Since birth, 9 mos.	Once every week	Neg.	1%	Neg.		Chronic tonsilitis	March 31, 1925.	1	Not yet well	
7. A.W.	5	M	Urticaria, vasomotor rhinitis 2 years ago	1 year	3 in last 2 months	Neg.	1%	+		Chronic bronchitis	April 25, 1925.	1	No more attacks since treatment	
8. J.E.	9	M	?	2½ years	Every 2d or 3d night	Van Pirquet Positive	5%	++		Beginning tuberculosis	Feb. 17, 1925.	1	Did not return	
9. M.Ch.	5	M	Eczema when 6 months old	?	3-4 times a week	Chicken Salmon		++	++	Eczema	Dec. 9, 1924.	2	Did not return	
10. M.G.*	9	F	Negative	Urticaria for 1 yr.	As often as twice a week	Neg.	6%	+++	+	None	May 26, 1925.	1	No more urticaria since treatment	

(4) was feeling much improved after one X-ray exposure, but he has not been completely relieved from the attacks. He will have further treatment, after his return from a 3 months' trip. In the other child who failed to respond to the treatment (5), we probably are not dealing with a case of pure anaphylactic asthma. No dermatographismus, no eosinophilia nor positive skin reactions were found.

COMMENT

In order to gain insight into the effect of this treatment on the organism, further observations have been made, which in spite of not being conclusive are worth mentioning. The most striking feature is the fact that the positive skin tests turned out negative soon after the treatment (chart 2). In the X-ray appearance of

CHART 2.
Case T. F. (5)

January 16	January 21 One day after Treatment.	January 26 Six days after Treatment.
Beef —	Beef —	
Chicken —	Chicken —	
Milk —	Milk —	
Eggs +++	Egg ++	Egg—
Rye +	Rye —	
Oats —	Oats —	
Corn —	Corn —	
Beans +	Beans —	
Spinach —	Spinach —	
Tomatoes +	Tomatoes —	
Strawberries —	Strawberries —	

the lungs no change could be demonstrated. However, the physical signs of chronic emphysema, such as hyperresonnance, prolonged expirium, diminished expansion of the lower lung margin and the wheezing noises disappeared. (Patients 1, 2, 5 and 6).

In case 5 blood calcium determinations have been made which showed slight increase in the calcium content immediately after the treatment. No ill effects have been observed except the ordinary Roentgen "cat" about five to seven days after the exposure. In regard to the eosinophile cells it has been observed that shortly after the treatment the count rises slightly, but decreases later on.

Children apparently are the best subjects for these studies, since we are dealing with its pure anaphylactic condition, not involved with secondary processes in lungs and heart as seen in adults. The writer has been enabled to apply this treatment to adults. Although some of these patients recovered more or less, the benefit obtained is not as striking as in children.

SUMMARY

The number of patients treated is too limited and the time of observation too short for yielding statistical evidence. These studies, however, are of sufficient conclusive evidence to warrant further investigation into the value of irradiation over the spleen in anaphylactic diseases.

It is believed that with this method a cure can be facilitated by stimulation of the function of the spleen which is greatly involved in the production of antibody as evidenced from the quoted literature. In order to interpret any results from this treatment it is essential that the diagnosis anaphylactic asthma must be definitely established, since other types of "asthma", i.e., thymus enlargement or chronic bronchitis cannot be expected to be benefitted.

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(I am indebted to Doctors H. A. Freund, B. T. Cooley, and A. M. Wehenkel for giving me the facilities to carry on this work.)

HEMORRHOIDS, THE COMPOSITE TECHNIC, AND LOCAL ANESTHESIA

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"The Poor Ye Have Always With You." So it is with hemorrhoids, and like the poor, they are a fertile subject for discussion—every proctologist has his own pet idea about them.

PREDISPOSITION

Mr. Darwin's theory of evolution has led us logically to an understanding that hemorrhoids developed since we started walking in the erect position. Without valves in the veins leading up from the ano-rectal region, there need be no other assigned cause for hemorrhoids, and consequently we have no preventive.

Some few years ago, an esteemed friend, suggested that we adopt one surgical procedure in performing an operation for hemorrhoids, and he strongly urged his own method; he was wrong! There is no more reason for standardizing such a surgical technic than there would be for standardizing our cuss words, breakfast food, or neckties. The technic should fit the temperament, skill, and equipment of the operator.

FUNDAMENTAL SURGICAL PRINCIPLES

There are, however, certain fundamental principles that should form the background in the development of every surgical technic, namely: safety, asepsis, speed in performance, and the avoidance of trauma. Progress would be most decidedly lacking were all proctologists to adopt the same ideas and methods of procedure. In fact, it is somewhat astonishing to find much of our literature a collection of others' ideas and experience.

THE COMPOSITE TECHNIC

In presenting the "Composite Technic" before the American Medical Association at New Orleans in 1920[1], it was explained that, as the word "composite" indicated, it was made up of the better parts of several technics. The Composite Technic used during the last five years by myself and numerous others, *consists of placing a catgut ligature above each hemorrhoid area, followed by complete excision, no sutures being used for approximation.*

By tying off the afferent and efferent blood vessels of each hemorrhoid area before excision, hemorrhage is controlled, and the possibility of embolus is lessened. Complete excision does away with the varicosities, and elimnates any tendency to recurrence. Excision should not be devastating, but made with refinement, and with but little sacrifice of anal skin. The wound is not approximated with sutures, thereby eliminating infection of any seriousness. A sutured wound is a potential abscess, while infection in an open wound remains superficial and quickly heals. Approximation is well performed by the normal action of the sphincter ani.

I recommend the use of a modified Sims rectal retractor, and explicitly urge that tissue other than that to be excised should not be traumatized in any way; this is important from the standpoint of anal tags and post-operative pain. With the simplicity of this technic, the desirable speed is necessarily developed.

In 1920, I described as a part of the composite technic, a local anaesthesia technic, and in 1922 at St. Louis[2], I again drew attention to this technic, discussing particularly the anaesthetic composition. I use either a one or two per cent solution of novocaine (procaine). This is injected through an iodized spot, well posterior to the anus, and carried superficially from this one puncture on each side of the anus into the anterior area, it is secondly carried deep into the sphincter muscle at several angles posteriorly and laterally. About two ounces (60 c.c.) of solution is used. The only difference that I notice between a one and two per cent solution is *that rapidity and profoundness of anaesthesia accompanies* the stronger solution. I avoid pre-operative morphine. Your attention is called to the fact that this technic is one of the few, if not the only one, that offers perfect asepsis in the introduction of the anesthetic, as well as speed in producing anaesthesia without distorting the surgical field. This last feature is of the utmost importance in doing good anal surgery.

CAUDAL ANAESTHESIA

I now wish to mention my experience during the past few months with *caudal anaesthesia.* I will say that I like it, and that the technic of its introduction into the sacral canal is simple. The rapidity with which anaesthesia is produced depends upon the amount of the solution introduced, as well as its strength. The anaesthesia is more lasting than the ordinary local anaesthesia, though not so rapid in its production. I have noticed a variable mental depression, accompanied by some confusion and faintness in about half of the cases in which I have used it. I am basing my remarks and experiences upon a few cases, approximately fifty, during the last three months. My technic has been to have the patient in my usual right lateral position; (right for the right-handed man, and left for the left handed man). Standing on the opposite side of the table from

*Read before Annual Meeting of the American Proctological Society, Atlantic City, N. J., May 26, 1925.

which one would naturally sit to operate, with a 15 CC syringe in the right hand, I find with the left index finger the little depression just above the junction of the sacrum and coccyx, where is located the sacral hyatus. The two and one-half inch needle is then introduced easily and quickly, and the only difficulty being an occasional attempt to introduce it at the wrong angle. Approximately 60 CC (two ounces) are introduced slowly, and on the average anaesthesia has been produced in between three and five minutes. I have tried three strengths of novocaine, one, one and one-half and two per cent. The two per cent plain solution is the most satisfactory from the anesthetic standpoint.

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OCULAR CHANGES IN RENAL DISEASE

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In this paper it is my endeavor to simplify the relation of ophthalmoscopic findings in renal disease and elucidate their relative value from a diagnostic and prognostic viewpoint.

During the years 1827 and 1836 attention was called to the relation of visual impairment and renal disease by Bright. Subsequently more attention was devoted to this relationship. The invention of the ophthalmoscope by Helmholz in 1851 made possible the observation of changes in the media and fundus of the living eye. This incited interest and contributed considerable value. Many physicians are now including in their general routine examination the opthalmoscopic study of the eye. Such an examination can be quickly made without inconvenience to the patient.

In the routine examinations of the patients who complain of blurred vision it is very common experience to find ophthalmoscopic changes characteristic of renal disease. It is not for the opthalmologist to diagnose this type of case, but valuable information as to prognosis is available. If the fundus proves to have no pathology referable to renal disease a much better prognosis can be given.

The clinical changes observed in the eyes are confined chiefly to the retina, optic nerve, choroid and vitreous. Retinitis of the so-called albuminuric retinitis shows itself by loss of transparency of the retina, white spots or patches, exudate and retinal hemorrhages, sclerosis of blood vessels and occasionally retinal separation. The cloudiness of the retina is greatest near the papilla because the retina is thickest there.

The normal retina is transparent, hence is not seen. The red reflex of the underlying choroid shows through. In pathologic conditions as a result of edema or infiltration the red reflex is obscured. White spots or patches are the most characteristic and frequent changes observed in the retina. These opacities are marked contrast to the surrounding red background. The white spots form sometimes a ring around the macula and optic disc. White glistening lines radiate from the macula, arranging themselves in the form of a star. This figure is seldom complete, but is very characteristic when found. When around the disc the spots are usually large and discrete.

Exudate, if present varies greatly as to amount and appearance. It is usually more abundant near the papilla.

Hemorrhages are quite constant, varying as to size, number and position. If in the upper retinal layers, they present a flame like outline and if deeper, are more sharply defined.

The veins are engorged and tortuous, the arteries sclerosed, showing compression of the veins where the artery happens to cross them. This impedes the venous flow, causing edema of the retina.

Separated retina occurs as a grayish reflex in contrast to the normal red reflex. A flat separation is more difficult to detect, but it usually projects into the vitreous chamber so that more plus in the opthalmoscope is required to focus clearly upon it. This separation is most frequent in the lower part of the eye and the visual field is lost for this projected area.

The optic nerve is at first reddened with some blurring of its borders, later the swelling involving the retina and optic disc is accompanied by exudation which may blurr the disc.

Exudation from the choroidal circulation takes place. These white patches are situated more deeply than the patches of a retinitis.

Visual disturbance is always associated sooner or later with the changes of a retinitis, the amount depending on the part of the fundus involved. Very slight changes at the point of acute vision, the macula will cause marked reduction in central vision. Extensive changes may exist in the fundus away from the macular area without impairment of central vision. Both eyes are usually affected, although it may be to a varying degree.

The fundus picture, while characteristic, should not be relied upon entirely in making the diagnosis.

DIFFERENTIAL DIAGNOSIS

In uraemic amaurosis there is a sudden, complete and transient blindness without fundus changes.

The retinitis occurring in septic and metastatic conditions, intestinal parasites and in the cachexia of wasting diseases such as cancer and tuberculosis are similar to nephritic retinitis.

The fundus changes in pernicious anemia and leucaemia characteristically appear as small white spots surrounded by a rim of hemorrhage.

Diabetic retinitis is not associated with inflammatory signs. The white spots are quite small and confine themselves usually to the peri-macular area. This is not always absolute and a urine analysis should be made.

Not all renal cases show fundus changes. With the slit lamp and contact glass we are now able to see earlier changes than with the ophthalmoscope.

PROGNOSIS

The duration of life after the eyes have become involved is longer in women and shorter in men of all classes. The renal disease, due to scarlet fever or pregnancy, is favorable as to life and vision. If retinal separation occurs the vision remains poor in the affected eye unless it returns soon to its normal position.

Patients who have an albuminuric retinitis associated with chronic disease usually die within one to three years. Exceptionally under the very best conditions life has been prolonged several years. Ninety per cent die within two years.

This illustrates the great aid in giving prognosis in renal cases regarding the duration of life furnished by supplementing the routine examination by the ophthalmoscopic examination of the eyes for characteristic changes.

RUPTURE OF THE GALL BLADDER—REPORT OF A CASE WITH OPERATION AND RECOVERY

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A careful survey of the literature upon rupture of the gall bladder during the last thirty years shows that there have been 348 cases reported. Of these, 199 recovered and 149 died. The mortality is, therefore, about 42 per cent. The actual maritality is probably much higher on account of the number of fatal cases which are not reported. It has, therefore, been considered proper to report the following case on account of its serious nature and its interesting history.

The patient is a woman, married, aged 56. Her weight was 192. She has had two children, one of whom died of accident at the age of 34. The other is living and well. She is an American by birth. Her habits are regular and the appetite is good. she sleeps well, but complains of severe colicky pains in the right hypochondrium. Menstruation began at the age of fifteen, was regular, lasted one week and the flow was profuse.

The family history was negative for carcinoma and tuberculosis. Patient had typhoid fever at the age of thirteen and rheumatism at twenty-two when she was ill for three months. Eleven years ago she had a supra-vaginal hysterectomy and ovarectomy performed. Thyroidectomy was performed in May, 1914. A urethral caruncle was removed seven years ago under local anesthesia. She was re-operated at Bay City three years ago for a recurrence of the same condition. A local surgeon removed a carcinoma of the vulva and the inguinal glands October 6, 1919.

The present trouble began while she was convalescing from this last operation. She had severe colicky pains in the right portion of the upper abdomen accompanied by chills, fever and the vomiting of bile. In January, 1920, the pains became more severe and frequent in appearance. She was treated in a local hospital for six weeks. A few X-ray treatments were given at this time and she was sent home with a diagnosis of inoperable carcinoma of the stomach, but no exploratory operation had been done. On May 21, 1920, an abscess ruptured through the abdominal wall in the gall bladder region. The attending surgeon enlarged the incision and a large amount of pus was evacuated. No exploration of the sinus was made and daily dressings were ordered which were continued for nine months.

I was summoned to the case on the evening of March 7, 1921, when a large gall stone had been passed through the sinus tract. It was of the size and shape of the bowl of a clay pipe. The writer extracted another gall stone similar in size from the opening of the sinus. Upon exploration with a long probe it was found that the sinus extended upward where a stone could be felt about three inches from the external opening.

The condition of the pulse at this time was irregular and the temperature was 98.6°F. There were no abnormalities of the skin, teeth, tonsils or pupils and there are no enlarged glands. The breasts are normal. The heart sounds were irregular and the lungs were normal. There was no jaundice present. The liver, kidneys and spleen were normal. There were no hemorrhoids nor herniae present. The knee jerks were normal. On March 12, 1921, examination of the urine showed that it had an acid reaction, specific gravity of 1020 and contained no albumin and no sugar. The hemoglobin was 90-100 per cent. The blood pressure was 100 systolic and 80 diastolic. The patient was placed on treatment with tincture of digitalis 10 minims every four hours.

On March 15, 1921, the blood pressure was 130 systolic and 80 diastolic.

March 16, 1921, operation at Maplehurst Hospital at 8 a. m., assisted by Doctors J. L. Gates and J. F. Adams. Incision made over the right rectus muscle enlarging the sinus. Numerous adhesions were found around the gall bladder and an opening through its wall large enough to introduce the fore finger. The gall stones were evidently discharged through this opening. The gall bladder containing a large gall stone, was removed. Tube and rubber tissue drainage was employed.

The patient suffered from post-operative shock at 12 noon. The skin was cold and clammy and the pulse was imperceptible. The Murphy drip was used and camphor, strychnine and pituitrin hypodermically.

March 17, 1921, the day following operation the pulse was 120. The patient retains no fluid in the stomach and has passed about six ounces of urine in 24 hours. Saline transfusion was performed in both breasts and hemostatic ferment was injected for hemorrhage from the liver substance. The

prognosis was doubtful. March 18, 1921, two ounces of urine were removed from the bladder by catheter. It had a specific gravity of 1012 and contained albumin and numerous casts, but no sugar.

At 8 p. m. of the same day 10 ounces of urine were obtained by catheter and the albumin has disappeared. March 19, 1921, the patient has voided one quart of urine in twenty-four hours and the bowels have moved.

March 22, 1921. The temperature was 99.5° F., the pulse was irregular and the patient is getting 10 minims of the tincture of digitalis three times a day. There was considerable hemorrhage on the dressings, the tube was removed and the clots washed out.

On March 27, 1921 there was a rise of temperature to 101°F., the discharge of pus is diminishing in amount and the tube was removed on March 29th.

April 16, 1921 the patient is still in bed; the pulse is irregular most of the time. The wound is nearly healed, but a little pus still oozes out of the suture openings. April 20, 1921, the urine was acid in reaction, had a specific gravity of 1012 and contained albumin, numerous hyalin and granular casts, lencocytes and red blood cells. May 25, 1921, the patient had made a good recovery, the wound is healed and the urine is normal. At this date, August 31, 1925, four years after the operation, the patient remains well with the exception that she occasionally gets shortness of breath upon exertion.

In reviewing this case it is interesting to note that it was misdiagnosed for two years by the attending surgeons who regarded it as an inoperable carcinoma of the stomach secondary to one of the vulva which had been removed by operation. The fact that the patient continued to gain in weight during this period should have been sufficient evidence that carcinoma could not be present. The colicky pains were also more characteristic of gall stones than of carcinoma.

ETIOLOGY

One of the chief predisposing causes of rupture of the gall bladder is cholecystitis, which is believed to be the result of stasis and infection. The infecting organisms are usually the colon and typhoid germs. Streptococci and staphylococci are also sometimes found present. Infection may pass from the duodenum along the common duct to the gall bladder or it may enter the latter organ from the blood stream by way of the portal vein. Rupture may result from overstretching of the wall of the gall bladder whether stones are present or not. Perforation may result from gangrene due to thrombosis of the blood vessels or infection of the wall. When the walls of the gall bladder are much thinned out they may easily burst by compression of them by the contraction of the abdominal muscles in coughing, vomiting or bending over. The bile which escapes from a ruptured gall bladder may gravitate to the right iliac fossa and give rise to symptoms simulating appendicitis. This type of the disease may be accompanied by the formation of adhesions about the gall bladder. Sometimes no adhesions form and death results, from general peritonitis. Traumatic rupture of the gall bladder is not considered in this report.

Rupture of the gall bladder often occurs without the development of acute general peritonitis. In these cases the bile is practically sterile. Gall stones may ulcerate through the wall of the gall bladder into the liver substance or into the stomach or duodenum or the general peritonial cavity. Moynihan found four such cases among his first twenty cases of cholecystectomy. Sometimes protective adhesions are formed around the gall bladder and the further passage of the stone is thus prevented. Abscess formation may result if there is any infection present, but this is not always the case.

Rupture of the gall bladder is often followed by death when operation is refused or the diagnosis is not made promptly. The abscess may burrow through the tissues of the abdominal wall and rupture through the skin, or into any abdominal organ as the stomach, duodenum or colon. In some rare cases the perforation may be acute and the gall bladder ruptured into general peritoneal cavity, causing a rapidly fatal general peritonitis.

The symptoms of an acute perforation of the gall bladder are those of a severe general peritonitis with pain beginning in some cases in the right hypochondrium but in many cases the pain was so intense and widespread that the case was regarded to be one of perforated gastric or duodenal ulcer or ruptured appendix. Frequently the true condition was only discovered by operation or autopsy. Other diagnoses have been volvulus and intestinal obstruction.

The pain develops suddenly and is intense in severity. It is often not localized, but spreads over the whole abdomen. Chills, fever, marked prostration with collapse and vomiting are often present. The muscles of the abdominal wall are at first rigid and tense, especially over the right hypochondrium. A few hours alter there is evidence of abdominal distention with gas and the pulse becomes rapid, small and sometimes irregular. Jaundice is present in some cases, but is never deep in color.

Operation offers the only chance of successful treatment in acute cases. The operation of choice is cholecystectomy because all of the infectious material is removed.

Korte says that one should estimate the virulence of the infection present and the resistance of the patient. Cholecystotomy gave the best results with 61 per cent recoveries.

Mayo advises laparatomy with cholecystectomy and free drainage. Courvoisier says that a perforated gall bladder should always be removed. An infected gall bladder should also be removed. In one case perforation undoubtedly resulted from bending over to lift water from a well. By this motion the abdomen was contracted and pressure was brought upon the gall bladder, which was filled with stones. The presence of stones and infection are usually necessary before perforation results. Pressure and infection are etiological factors. Courvoisier accumulated all the cases of perforation of the gall bladder up to 1890 in Germany and found that there were 199 out of two million cases of gall stones.

In cases of injury of the bile passages Noetzel observed that aseptic bile may be poured into the peritoneal cavity in large amounts without harmful results. It has also been shown experimentally that bile does not always cause peritonitis when introduced with large amounts of pathogenic bacteria. The author advises operation in all cases of gall bladders which are tender upon pressure with peritoneal irritation. Perforations without infection are not dangerous, but the infectious kind are very dangerous.

Meriwether in 1910 reported 87 cases of perforation and 31 of rupture in 2,135 gall bladder operations. The mortality of the rupture cases was 37 per cent.

McWilliams in 1912 collected 108 cases of perforation of the gall bladder or ducts into the peritoneal cavity, including six of his own. The mortality for the series was 48 per cent and perforation occurred in about 1 per cent of all gall bladder operations.

Whitacre reported a series of ten cases of ruptured gall bladder in 1911 and believed the cause to be a rapidly developing infectious cholecystitis which resulted in an increased tension within the gall bladder with necrosis, ulceration or gangrene of the mucous membrane at first and of the other coats later with a rupture of a portion of the wall of the gall bladder. The fact that normal bile is well tolerated in the peritoneal cavity is shown by the findings in a case operated upon by Garre. The operation was performed two months after rupture of the gall bladder and there was a large localized collection of bile in the peritoneal cavity and the patient recovered. On the other hand it has been found that bile which escapes from a ruptured gall bladder containing stones is highly infectious and often causes fatal peritonitis.

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STAPHYLOCOCCUS MENINGITIS LIMITED TO SPINAL CANAL; PUNCTURE OF CISTERNA MAGNA

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In June, 1919, Dr. James Ayer advocated puncture of the cisterna magna as a means of diagnosis and treatment in certain neurological cases. In August, 1923, he reported a total of 1,185 punctures of the cisterna magna on 450 patients in the hands of some fifty physicians. In this series there was no death which could be attributed to the procedure. Occasionally sudden dizziness occurred, accompanied by nystagmus and nausea. Pain in the face or on one side of the body was noted in a few instances. In two cases of cord tumor under primary ether anesthesia respiration stopped for a few seconds. All of the complications noted above were of short duration and were followed by no ill effects.

INDICATIONS FOR CISTERNA PUNCTURE

Ayer considers choked disc the most reliable guide to conditions in which the procedure is contra-indicated. He states the indications for cisterna puncture as follows :

1. In the treatment of meningococcus meningitic block.
2. In the serum treatment of cerebral syphilis.
3. In the early diagnosis of compression of the spinal cord.
4. For obtaining cerebrospinal fluid for examination when impossible or inadvisable to obtain it by spinal puncture.
5. As one point of entrance to the subarachnoid space for the purpose of irrigation.

In 1921 McCusker reported 55 punctures in 9 patients with no mishaps. Fluid was obtained in most cases at a depth of 4-5 cm. The needle was never inserted beyond 1 cm. The

patients suffered less discomfort than from lumbar puncture. He states that the injection of serum caused no slowing of the pulse. This is directly contrary to our experience in a case of meningitis where the pulse rate was slowed when the serum was allowed to flow in and increased when it was withdrawn. McCusker describes Ayer's technique somewhat as follows:

TECHNIQUE OF CISTERNA PUNCTURE

The back of the head and neck are shaved and prepared as for any surgical procedure. The patient is placed on his left side, the head flexed on the chest and elevated on a pillow so as to bring the occipital protuberance on the same horizontal line as the vertebral spines. Just below the occipital protuberance in the median line a depression is felt between the base of the skull and the spine of the axis. The skin and soft tissues at this point are cocainized. The thumb of the left hand is pressed firmly into the depression and a sharp lumbar puncture needle inserted into the space between the base of the skull and the spine of the axis. The needle is advanced carefully until the resistance of the dura and the occipito-atloid ligament is felt and overcome. Fluid can now be withdrawn.

Ayer believes that cisterna puncture should be done only after considerable practice on the cadaver. This is no doubt highly advisable. However, a large number were done at Bay View by internes with no special training other than some experience with lumbar puncture. The resident supervised our first two or three attempts. There were no accidents and the procedure seemed rather easier than lumbar puncture and less uncomfortable for the patient.

CASE ILLUSTRATING UNUSUAL APPLICATION OF CISTERNA PUNCTURE

The patient, a Jewish girl of fourteen years, was admitted to my ward on the medical service of Bay View Hospital, Baltimore, September 28, 1922, with the complaint of pain in the lower part of the back. The family history was irrelevant. Her personal history was of no importance, except for the story of a severe fall on the sacrum and lower lumbar region three years before. At that time she had had some pain at the site of injury but the symptoms apparently subsided quite promptly and she had no more trouble until the onset of her present illness. Past history was obtained with difficulty through a social worker and was very unsatisfactory. The present illness began four days before admission with pain in the lumbo-sacral region, headache and high fever. She vomited the medicine given her. On the third day of her illness she was taken to a Baltimore hospital where lumbar puncture the following day showed thick, creamy pus. A tentative diagnosis of meningococcus meningitis was made and 10-15 c.c. of antimeningococcus serum were injected into the spinal canal. The patient was promptly transferred to Bay View Hospital. On admission she complained of abdominal pain, but did not remember its duration. She had had continuous fever and much headache since the beginning of her illness. There had been no diplopia and no cervical pain or rigidity.

Physical examination showed a moderately nourished and fairly well developed girl of fourteen. She was mentally clear and co-operative. The cheeks were flushed and the skin hot and dry. The temperature was 103.6 by mouth, pulse 126, strong and regular. The respirations were 36, somewhat shallow, with slight expiratory grunt. There was no diplopia and the extra-ocular movements were well performed. The neck showed slight rigidity but little pain. Kernig's sign was definitely positive on both sides and the patient complained of pain in the back when it was elicited. There was definite tenderness at the site of the previous lumbar puncture between the fourth and fifth lumbar vertabrae, but nowhere else along the spine. The knee-kick and ankle-jerk were sluggish on the left side and were not obtained on the right. The deep arm reflexes and Babinski sign were normal on both sides. There was diffuse abdominal tenderness without rigidity . Except for slight pyorrhea and hypertrophied tonsils the other physical findings were normal.

The W. B. C. was 33,600; A. B. C., 4,808,000; Hemoglobin, 63 per cent. A small amount of very thick yellow pus was obtained by lumbar puncture. Smears showed great numbers of staphylococci and a pure culture was grown in twelve hours. A cisterna puncture done by Dr. Clyde McNeil, the medical resident, showed a very slightly cloudy fluid under greatly increased pressure with a cell count of only 190. Culture of the cisterna fluid was negative.

DIAGNOSIS

The case was diagnosed as a staphlococcus meningitis limited to the spinal canal by block due to adhesions. An X-ray picture taken the following day showed osteomyelitis of the right sacro-iliac joint. The temperature ranged between 102 and 104.2 by mouth while the patient remained on the medical service.

TREATMENT

The case was transferred to the surgical service the day after admission to the hospital and an operation was performed by Dr. Frank Lynn. A longitudinal incision, centered at the site of lumbar puncture was made and the spinous processes exposed. The posterior arch of one vertebra was removed and the spinal canal opened. A large quantity of pus escaped. The opening was increased to a length of about 12 cm. A small rubber tube was passed up the spinal canal and pus promptly began to run out through it. The pus pockets in the sacrum were located and rubber tube drains inserted. Daily irrigations of the wound with hot water were begun two days after operation. Drainage was constant and profuse.

For the first four or five weeks after opeartion the temperature ranged from 100 to 104. It then gradually came down until it was running between normal and 101, usually 99-100. The patient then began to gain weight and two

months later was able to sit up in a chair. At this time there was marked flexion of the thighs on the abdomen. She was put up in a plaster cast which was changed at intervals until the limbs had been straightened. In the course of a year she was able to walk out of the hospital.

I have not been able to discover a case of this sort in the literature. Dr. Arthur Shipley, who also saw the above case, told me of seeing an instance of sacral osteomyelitis in which the infection had involved the spinal canal. Cisterna puncture was not done. The patient died. McCusker reports a case of lumbo-sacral meningitis following an unsuccessful attempt to locate a needle broken off in the lumbar region. The cistern fluid was clear. He irrigated the spinal canal, through a cisterna needle of entrance and a lumbar needle of exit, with Ringer's solution every other day for twenty-four days. I gained the impression that the condition was cured, although this is not expressly stated.

MENINGISTIS OF PYOGENIC COCCI ORIGIN

Meningitis caused by the pyogenic cocci has been regarded as almost invariably fatal. It may well be that in a certain percentage of such cases, as in ours, the infection is confined to the spinal meninges, at least for a time, where it is susceptible to surgical intervention with a fair prospect of success. Considering the desperate character of the disease, it would seem decidedly worth while to investigate the cisterna fluid in those cases of meningitis which are not definitely due to the meningococcus. Our experience at Bay View indicates that there are many general practitioners who could perform the puncture in a pinch without great risk to the patient. Familiarity with lumbar puncture, a strict aseptic technique and the ability to follow printed directions would doubtless suffice for success in most cases and failure would not be likely to damage the patient.

COMMENT

The operation in this case served its purpose in saving the child's life and eventually clearing up her infection. Certain modifications, however, have since occurred to me which, I believe, might have considerably shortened the convalescence and cut down the formation of adhesions. It should have been possible to determine more exactly the level of the block either by making spinal puncture at different levels or at the time of operation. With this information in mind through and through irrigation from above downward could have been established by inserting a large spinal puncture needle just below the level of the block.

Probably a more effective method of treating this type of case would be to open the spinal canal at this point and irrigate through a tube. The latter arrangement would allow the use of continuous irrigation if deemed advisable.

ACTIVATING FACTORS IN PULMONARY TUBERCULOSIS

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There is probably no chapter in the history of medicine more rife with interest than that which deals with the etiology of tuberculosis. Those of us who have delved into its chronicles and extravagant lore, have found theories, amusing and pathetic. In a previous paper[1], we quoted Beddoes, who held the chair of chemistry at the University of Oxford, and who in 1793 wrote his friend, Erasmus Darwin[2]: "If it be true, however, as so many practitioners believe, that consumption is now much more frequent, it is easy, according to my system, to understand whence this has happened: The inhabitants of this country almost without exception breathe a freer and purer air than their ancestors. Nor do I believe that there is any particular in which the difference between the present and some past generations is so remarkable. You see, then, that the subjects of our Edwards and our Henrys and of good Queen Bess, may have found in being more free from so formidable a disease than our delicate and airy posterity, some compensation for the confined air and filth in which they passed their existence." Beddoes concludes with the firm conviction that "Pulmonary consumption is of a fact due to hyper-ogygenation."

The discovery of the tubercle bacillus by Koch dispelled wild imageries and fanciful concepts, and firmly established the direct offending cause. Since that time, however, what progress have we made, and what incontestible conclusions have we arrived at as regards the mechanism of tuberculosis, the activating agent or agents? Not more than fifteen years ago, out of chaos and a maze of speculation, came the theory of childhood infection which insisted that practically all adult pulmonary tuberculosis had its inception in the juvenile years. At first cynically and skeptically received, it soon, bolstered by necropsical and clinical evidence, was widely acclaimed. The past few years have seen it challenged by some, including most recently, the able pathologist Aschoff. So that today, a half century since the direct causative agent was discovered, we are still not in accord as to the contributing factors. However, the splendid work done by scores of investigators in substantiation of this theory leave it rather firmly established, though materially modified.

Probably 50 per cent of all adult pulmonary

tuberculosis has its inception in the juvenile years, the remaining 50 per cent may be attributed to direct massive contact infection in the later years of life. Tuberculous infection in childhood, the precursor of adult pulmonary tuberculosis is, in the main, a glandular infection. It is true, intestinal, peritoneal, bone, and lung infections occur in the early years of life, but they are relatively rare, so that tuberculous infection is almost synonymous with tuberculous adenitis. When we consider that practically 50 per cent of all children have been tuberculously infected, we are impressed with the infrequency with which these cases are diagnosed and rationally handled, the reason being that tuberculous adenitis is an insidious infection which, as a rule, runs a mild self-limited course. When we remember, however, that this infection not only offers the atrium for the dire scourge of adult life, but what is more, that it may and in many instances does provide the focus and organisms which later are to transfer their scene of activity to lung tissues, we are reminded of the necessity of closer attention to the primary infection.

The detection and management of tuberculous infection is not within the scope of this paper, but leads us to a consideration of the topic of discussion—Activating or Predisposing Factors in Pulmonary Tuberculosis. Confronted with the fact that roughly 45 to 50 per cent of all adults have been tuberculously infected during infancy or childhood, and harbor within themselves a latent focus and potentially virulent organisms, we are apt to question, why less than 5 per cent develop metastases in the guise of an active lung lesion? The answer, of course, is to be found in the matter of immunity—resistance. The causes or factors which disturb and lower this balance of resistance, and thereby pave the way for activation, form the basis of this paper. While it is true that any condition, circumstance or combination of circumstances which lower vitality, thereby in the same ratio act as predisposing factors, it has been thought advisable to review and group the more important ones.

1. Acute Infectious Diseases:
   - Measles.
   - Influenza.
   - Whooping Cough.
   - Scarlet Fever.
   - Diphtheria.
2. Respiratory Diseases:
   - Bronchitis—Acute and Chronic.
   - Pneumonia.
   - Pleurisy—Dry and Effusion.
   - Asthma.
3. Foci of Infection:
   - Tonsils, naso-pharynx, sinuses, teeth, mid-ear, intestinal, appendix, gall bladder, genito-urinary.
4. Habits:
   - Fatigue.
   - Alcohol.
   - Tobacco.
   - Veneral.
   - Occupation.
5. Massive Re-infection.

Measles—For almost fifty years, in fact from the time that measles was recognized as an infectious disease and attained a true identity, up to the present, it has been associated by the profession and the laiety alike with pulmonary tuberculosis. The why and wherefore of this belief is not real clear. Measles, as a rule, is a rather mild, inoffensive infectious disease, running a brief febrile course, with slight skin manifestations, some general and gastro-intestinal disturbance, and a quite negligible bronchitis. And yet even today it is looked upon askance. The writer had the rather unusual opportunity some six years ago of checking 596 cases of measles in adults. The work was done on soldiers, thus affording repeated observations. These men were all tuberculosis suspects, whose chests had been gone over repeatedly before they contracted measles, and careful record kept. They were re-examined ten days after they had convalesced from measles, again thirty and sixty days later. The results published in 1919[3], were very interesting, and were briefly as follows: Of the 596 cases of measles, only two showed unmistakable signs of activation of an old quiescent lung lesion directly attributable to the measles infection. While we appreciate that one series, even of such considerable magnitude, is no criterion, it has served to make us skeptical as to the importance of measles as an acitvating factor.

Influenza—In contra-distinction to measles, influenza has never been looked upon with any great suspicion as a predisposing or influencing factor in pulmonary tuberculosis. The texts, old and new alike, and even recent monographs, cite it merely as a possible cause of re-activation. Again it was our good fortune to do some work on this subject.[4] In 1919, we had under close observation thirty cases of quiescent pulmonary tuberculosis, none of which, on repeated examinations covering a period of six months, showed signs of activity. Of these thirty cases, seventeen contracted influenza, and a study of their subsequent course is of interest. Of the seventeen cases, four died, and the remaining thirteen ran the usual severe toxic course, and then drifted into a protracted convalescence. Within three months, six cases, or almost 50 per cent, showed physical evidence of re-activation, and a positive sputum.

During the six years just past, since this work was done, we have given the matter our close attention, and have added further observations: For example, during the years of 1920 to 1924, we encountered eighteen cases of frankly active pulmonary tuberculosis in adults, within from one to four months after a

severe influenza, all of whom gave a history of perfect robust health prior to this infection.

Since the publication of our original work in 1919, calling attention to the importance of influenza as an activating factor, several interesting corroborative articles have appeared. Foremost amongst them if one by Dr. Louis Boisliniere of St. Louis.[6] In the course of this publication, Dr. Boisliniere gives the following figures: In fifteen months, 409 cases of active pulmonary tuberculosis were admitted to Mount St. Rose Sanatorium. Of this number, ninety-seven, or 24 per cent, gave a history of influenza. And of this ninety-seven, sixty-two gave a history of robust health prior to their influenzal infection. Dr. Boisliniere's article also contains several interesting and relative quotations: For example, that of W. D. Tewksbury of Washington, who found in a series of 104 tuberculous patients, 25 per cent the direct sequel of influenza. Again, another series provided by Dr. Edward R. Baldwin showed fifty-two cases out of 200 attributable to influenza.

We have therefore come to look upon influenza with the greatest apprehension, and have made it routine practice to re-examine all influenzal patients at thirty-day intervals for a period of six months.

Gas Poisoning—In 1919 we were afforded the further opportunity, while in the service of the U. S. army, of examining some 2,000 cases of chronic gas poisoning, with the view of determining whether these gases had served as an activating factor towards pulmonary tuberculosis. The results were published[5] at that time, and the summary was as follows: "That gas victims, irrespective of the type of gas and severity of attack sustained, showed no marked predisposition towards active pulmonary tuberculosis, or toward re-activation of a healed or quiescent pulmonary lesion."

Whooping Cough—It is our belief that whooping cough, because of the usual severe and long drawn out bronchitis and the general devitalizing influence of the disease, is a very much under-estimated factor in activation. We have quite frequently noted the relighting and re-establishment of an active tuberculous adenitis in children following convalescence from this disease.

Scarlet Fever and Diphtheria—Of the two, we believe the former, the greater menace. In fact, the universal and early rational use of anti-toxin has completely changed the status of the latter disease.

Respiratory Diseases: Bronchitis—The usual acute and subacute bronchitis, in which the inflammatory process is limited to the lining of the large bronchial trunk, and does not invade the bronchioles, which runs a mild febrile course of one or two weeks, is inoffensive and inconsequential. However, the type, often the aftermath or extension of a coryza, in which the purulent sputum is practically a pure strain of staphylococci, which is followed by a general depression and constitutional symptoms of varying degree, is, we believe, a very considerable menace.

Pneumonia—Here we have a disease which should logically, from both a clinical and a pathological standpoint, prove a powerful activating factor. Clinically, because it not only calls forth all the active defensive properties of the human host, but carries on, and demands, as a rule, most of the reserve. It surcharges the blood stream with a foreign foe, and annexes the immunizing properties of body cells. Pathologically, it should predispose, through dialtation and engorgement of air vessicles, and the temporary defunctionizing of very considerable lung tissue. And yet our experience and statistics fail to convince us of the seriousness of this disease as a causative factor in relighting a quiescent focus.

Pleurisy—Primary pleurisies, both plastic and with effusion, are almost always of tuberculous origin. They are, however, usually the result of direct extension from a pulmonary focus, and therefore are, strictly speaking, not an activating factor. They are a symptom, an effect, rather than a cause. Occasionally, it is true, a tuberculous pleurisy has its origin in the pleura, and then by contiguity effects a direct extension to lung tissue. The so-called "secondary non-specific pleurisies" which either accompany a pneumonia, or follow a trauma to the chest wall, are in our experience unimportant as predisposing factors. An exception to this statement must be made in the case of children. A hydro-thorax occasionally, and an empyema frequently acts as the direct activating factor in lighting a pulmonary focus.

Bronchial Asthma—Statements varying from "bronchial ashtma and tuberculosis do not coexist", to "bronchial asthma rarely predisposes to tuberculosis", are encountered, and both are faulty. We have come to believe that acute attacks of bronchio-spasm, running a brief course, are relatively unimportant. In the typical bronchial asthma accompanied with blood changes, and local and constitutional manifestations, we have quite frequently been able to consider this disease the direct cause of the relighting of an old focus.

Foci of Infection—We have for the past few years found the subject of foci of infection of absorbing interest in relation to activation of pulmonary tuberculosis for diverse reasons. In the first place, we encountered, at first only occasionally, later quite frequently, instances in which a very trivial focus unquestionably was directly responsible for lung activation. The site of these foci varied widely, in fact, practically ran the entire gamut—tonsils, nasopharynx, sinuses, teeth, mid-ear, intestinal, ap-

pendix, gall bladder and genito-urinary—and in about that order as regards frequency. We found the matter of focal infection of great interest in the second place, because of the great frequency with which such foci simulated clinically an early activation. In the case of a tonsil or tooth or naso-pharynx, we encountered a history most baffling because of its similarity with our pulmonary histories. The same story, for example, of depression, fatigue, anorexia, weight loss, slight elevation of pulse and temperature. In addition, in the case of tonsils, the history of cough with expectoration of blood. In the third place, the matter of focal infection plays a very considerable part in the management of a reactive lung lesion. Frequently such an active focus is favorably influenced by the removal of the activating cause.

Habits—Personal habits, we believe, constitute a most powerful predisposing force if we accept the caption—Habits—its its broadest sense, and include, first and foremost.

Fatigue—Just as rest is probably immunity's greatest synergyst, so is its antithis, fatigue, in our opinion a very much under-estimated element in producing activation or disease. We like to think of fatigue as being either of physical or mental variety.

Physical Fatigue—While it is unquestionably true that this condition may be occasioned by a variety of circumstances, three elements stand forth as frequent offenders. These are insufficient sleep, faulty ventilation and lack of muscular exercise.

1. Sleep. The amount of sleep required varies so widely with the individual, and is influenced to so great an extent by age, occupation, habit, etc., that it is difficult to determine the essential requirement, nevertheless, a protracted and marked deficiency of sleep soon leaves its imprint. In addition to the amount of sleep obtained, the element of regularity must be considered. We are all convinced, either from personal experience, or from observation, of the devitalizing effect of frequent irregularity in hours devoted to sleep, and we have been impressed with the fact that ten hours of sleep in one night will not compensate for the curtailment to four or five hours on the night preceding. There is no such thing as "catching up on sleep."

2. Faulty ventilation at home, at work, or at play, is an undermining factor of consequence.

3. Lack of muscular exercise, especially in individuals of sedentery nature, leads in time to physical weariness.

Mental Fatigue—Worry and fear not only lead to apathy towards work and recreation, with the resultant loss of ambition and listlessness, but when prolonged, invariably brings on fatigue. The passions, jealousy and hate, while fortunately, as a rule intense but brief, if drawn out over a considerable time, must be considered a source of mental fatigue.

Libido—It has never been clear to us why little or no attention has been directed to this not infrequent state of mind encountered amongst adolescent youth, at the age from which pulmonary tuberculosis draws most of its recruits, and why this condition should not be listed amongst the predisposing factors. The term libido, like fatigue, is used in its broadest sense. It refers not alone to excessive venery, nor does it stop with masturbation. It includes and applies particularly to that group which, through the influence of endocrine dyscrasia, mental taint, or heredity, are sex-engrossed. The individual who is constantly under mental sexual excitement, with a resultant impairment of sleep, appetite, etc., who rarely enjoys complete relaxation, whether at work or at play, consistently develops signs of mental fatigue.

Alcohol—The abuse of alcohol, particularly by the young as a flaunt to experimental legislation, is a factor of growing importance.

Tobacco—The use of tobacco, except by the very young, or by any one in marked excess, does not appeal to us as worthy of note.

Venereal Disease—Gonorrhoea, untreated or of severe grade, we have found occasionally a factor much to be feared.

Occupation—Texts not so obsolete but that they still lay claim to space on our shelves, ranted voluminously against "hazardous occupations", improved sanitation, and humane legislation have stricken them out, so that today no such directory exists. Any occupation attended with adequate fresh air and sunshine is safe.

Massive Reinfection—Surprisingly meager attention has been given by research workers and clinicians to this absorbingly interesting phase of tuberculosis. Whatever work has been done, has been largely of a theoretical nature. This has lead to unsubstantiated deductions, dogmatic aphorisms, and frequently, we believe, to most illogical conclusions. Take, for example, the very widely accepted statement that few, if any, individuals in close contact with an active consumptive, in virtue of this contact, reactivate themselves. A certain amount of work has been done in an attempt to prove this statement. Sporadically statistics are compiled by various institutions, setting forth that the entire absence of active pulmonary tuberculosis in sanitoria attendants, nurses, physicians, etc., should be accepted as proof of a gradually developed immunity on the part of this personnel against clinical pulmonary tuberculosis. We are forced to take a firm and decided issue on this point. Certainly the experience of clinicians in the broad field of community practice does

not bear it out. Surprisingly and discouragingly frequently we encounter active pulmonary tuberculosis which must be attributed to massive reinfection, through close and continued contact with an open front consumptive. So frequently of a fact, that we have become convinced that massive reinfection through continued close contact is an all powerful reactivating force.

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"THOSE GOOD OLD TIMES," AS SEEN BY A PHYSICIAN

(PART V.)

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ASIATIC CHOLERA

This is an acute, highly fatal, intestinal disease. The onset is very sudden, the patient is prostrated and soon haggard from the great loss of water due to the diarrhea. He is dried out like a sponge after squeezing. In 30 to 80 per cent of the victims death comes in a few days, at times in a few hours. So sudden is the beginning and so soon the death that it has been said—"Cholera begins where other diseases end—in death!"

Asiatic cholera seems to have its home in the delta of the Ganges river. From here it has spread to other parts of India and Asia since some time before Christ. A description of this disease as vishuka has been found written 6 centuries B. C.

The first European to describe it was Carrea, a Portugese, who stated that in 1503, 20,000 men died of it in the army of the Soverign of Calicut. He describes another epidemic in 1543, which was so sudden and so severe that a poison was supposed to be the cause. Others after this frequently noted its occurrence.

Paisley, an Englishman, wrote of an epidemic in Madras in 1774. Since then the English have had much to do with it.

In 1781 an English army officer marching with 5,000 Bengal troops described his experience as follows:

"Death raged in the camp with horror not to be described, and all expected to be devoured by the pestilence. In vain I studied to discover the cause of our misfortune. I attributed it to a poison, but at length found that there had been a pestilential disorder raging in the parts through which our first marches lay, and that part of our camp was already drinking the air of death and destruction."

McNamara describes an epidemic in 1783 among some pilgrims and reports that 20,000 were killed in 8 days. The Hindus make pilgrimages to the Holy Ganges river as do the Mohammedans to Mecca and this habit is responsible for a great deal of evil that cholera has done. In 1816 it began its travels to other parts of the world, following the lines of travel mostly by sea. It spread for seven years when it died out. During those years it visited Borneo, Java, the Phillipines and China to the east and Arabia, Persia, Syria, Egypt and northern Africa to the west.

In 1826 the second emigration came and continued for 11 years, ending in 1837. This time it spread over the greater part of Europe and portions of America. This epidemic seems to have been brought by pilgrimages of the faithful to Mecca and from there spread by other pilgrims to all points of the compass.

The third great pandemic started in 1846 and lasted until 1862. It killed in France, 150,000 people. It entered this country through New York and New Orleans at the same time by means of two German emigrant ships.

It followed the Mississippi, Missouri and Ohio as far as they were navigable. It was carried across the plains by gold-seekers to California. It visited Detroit with severe results and came to Flint with deadly toll.

Dr. Murray, who only recently died, has told to me his experiences with it at that time.

The fourth pandemic lasted from 1864 to 1875 and in Prussia alone it killed 114,683 victims.

The fifth pandemic began in 1883 and reached New York harbor to be stopped by our quarantine methods. In European Russia, through which it came, it destroyed 800,000 people. In Hamburg there was a particularly severe visitation at this time and the fact that the disease was spread readily by drinking water was here proven.

Hamburg took its water supply from the Elbe river and distributed it without filtration. Altona, a city near by, also used the same water, but has a modern filtration plant. In August, 1892, cholera struck Hamburg suddenly and for days there developed 1,000 cases a day. There were 16,950 cases in all of whom 8,605 died

in four months. It was a veritable city of the dead.

In Altona, but 512 people had it. Speaking of these epidemics, Vaughan says:

"In all these excursions, among all kinds and conditions of men, in every degree of civilization, in the tropics and amid the snow and ice of northern Russia, in the thronged city and in the emigrant's wagon, with high and low, slave and master, wherever it has traveled, cholera has maintained its individuality and has shown no modification in manner of attack or variation in the symptoms induced in its victims. Its vehicle of transport has been man's body and it has followed the lines of human travel, on foot, on horse or camel, by stage or ox team, by steam on land and sea. The sick and dying have scattered its progeny around the world. The science of preventive medicine is the only detective who can trace this criminal, the only officer who can arrest it and the only executioner who may finally remove it for all time from the earth."

Such a terrible disease invites attack by men of science and it was thoroughly studied.

The mode of spread was early traced. In 1865 cholera broke out among 90,000 pilgrims in Mecca; 30,000 fell victims to it there and the rest fled in all directions spreading it as they went. It was so easily traced that maps of its spread were made and they all could serve well as maps of the routes of sea and land travel, for they coincide.

It was found that while it did spread from person to person through the medium of the things they handled, that the great outbreak in cities were due to pollution of the water supplies.

It could be kept out of cities by keeping out travellers from infected districts.

In 1883 Koch discovered the germ causing it and with this known, cholera becomes an open book, and its control readily handled in well organized civilized countries. Since 1873 many cases have been brought to our ports only to die out there without gaining admittance. In one year there were 72 cases found in the port of New York.

It has become one of the most controllable of the pandemic diseases as a result of scientific medicine.

THE DEVELOPMENT OF THE SCIENCES

Various definitions are given for science such as, "It is a systematic arrangement of *demonstrated* facts relating to the external world as recorded by our sense impressions." That is probably good, but not so simple as, "A science is composed of sufficient *proven* facts to explain a certain subject."

The term science is used loosely to cover most anything. Most newspaper science is not science, just as most newspaper "professors" are not learned teachers.

Since a science depends on demonstrated facts, no science can be built upon faiths or beliefs alone. No science can be founded upon *unprovable* things.

In cross-word puzzles and with so many people science is made synonymous with art, skill or wisdom. It is none of these, though they all are useful in its development. Healing the sick, religion, dancing, necromancy, business, baseball, etc., are not sciences even if their followers call them so.

A science must cover the field well enough to give a whole understanding of it and every theory advanced in explanation should be based on truths which are actually proven. The basis is always demonstrated truths.

There are certain ear marks by which the facts of a science can be identified and which separates them from the ordinary facts of experience.

1st. *They are subjected to the most severe criticisms before acceptance.* Scientists are all from Missouri, so when one of them thinks he has found a new truth, the rest of them at once question it. They subject it to all the investigations at their command and it is only when it stands this ordeal unscathed that they add it to their common store.

Nothing is believed just because it seems plausible or because some one said so or because it was read in the paper or because some influential man advanced the idea.

2nd. *The facts of science are impersonal.* They may be discovered by some one with a selfish motive for advancing them, but before acceptance they go through so many disinterested hands that they are separated from any bias in so far as they humanly can be and even if they do violence to our preconceived notions or even to our own welfare, they nevertheless are material for a science so long as they are true.

3rd. *The facts of science are accepted practically unanimously by those who have the proper training and knowledge to understand them.* Controversies often arise when a new truth is discovered, but these fade away as the sceptics fail to shake it by their investigations, until at last it is believed by all of those who are competent to judge it.

It follows from this that there can be but one science. There are schools of art and philosophy, but only one chemistry, one physics, etc.

Since there were civilized men there have been those who were curious and intelligent so

that speculations were indulged in by them to explain their observations.

Each of the civilizations developed arts of their own; philosophies of more or less merit; literatures some of which are yet worth study. In the applied arts they went far, for they could extract metals from ores and work them with a skill in some ways never surpassed; they tanned and worked leather; they made fermented wines and beers; they made glass and pottery; they manufactured starch and the Arabs manufactured arsenic, borax, alum and acids like nitric and sulphuric. But not one single chemical process underlying these arts did they understand. What they knew was the result of fortuitous accidental discovery, what they did was entirely by rule of thumb, what skill they showed was limited to deftness of hand alone.

The Greeks, who were the most advanced of all, in some of the arts have scarcely been equalled, in reasoning they were adepts and developed philosophies which we pattern after today. But they never had more than inklings of material truths, they made many surprisingly shrewd guesses, but they never developed any exact science. The facts they gathered were never subjected to the needed tests, their shrewd surmises, often uncanny in their nearness to what was really so, never passed the stage of disputable beliefs. They could establish but few facts as fundamentally and incontrovertably sound—and they could never pyramid such a cumulative mass of truths as to found a science.

They established their beliefs by thinking, reasoning, meditation, disputations, arguments and in such methods acquired much skill.

Where they failed was in not using check-ups, tests of precision, parallel controls and the means of verification as is done today.

There is a comparatively recent school of philosophy which explained the limitations beyond which the ancients could not go. They are called Pragmatists and they are doubters of the show-me type supposed to be so common in Missouri. These men declare that practical workableness is the only test for learning the truth of an assumption.

They say that no knowledge is determined or determinable exclusively by abstract intellectual considerations.

No number of properly interpreted observations and declarations of wise-men established the fact that the world was round so well as did the simple trick of sailing around it. It became then a settled truth for all intelligent people and was removed from the realm of questioned theories.

The best of human minds are not equal to the task involved in thinking out fundamentals without error. Trials and check-ups are necessary to keep them all from mistakes.

With all their tremendous experience, with all their special knowledge, and with all their practiced cleverness, automobile engineers cannot design a car on paper which will make up in the metal without "bugs which must be ironed out" by trial before it is practicable. And a science is ever so much harder to build than an automobile.

The pragmatists are right, all deductions must be checked up by control tests and experiments which show our most plausible conclusions are astonishingly often wrong. The basis of all such tests is comparative measurement and this requires exactness of a very high degree. In addition the results of such observations must be available to other men. The more men who know of them the more likely they are to be of use.

It may take a life time to prove a single fact and to have the knowledge of it die with the discoverer would render his research useless.

It has taken thousands of investigators in thousands of places to prove the hundreds of things we now know to be really so.

A French army surgeon (Laveran) stationed in northern Africa with his microscope (an instrument of precision), found by actual examination, minute parasites in human blood which he suspected were the cause of malaria. Similar examinations did not show them in people who were free from malaria. An English army surgeon (Ross) in India, read of this and confirmed this discovery. He then went further and with his microscope found them also in certain kinds of mosquitoes which he identified to the rest of the world by its scientific name. He found by actual tests that malaria in man was produced by the bite of such an infected insect and by no others. He found by actual tests that only this particular kind of mosquito could be infected by biting a malarial patient and carry the disease. All this took years to reduce to proven facts. Then an American sleuth (Howard) in the Department of Agriculture in Washington, took up the chase. He trailed the mosquito to its home, he learned its complete routine of life, when and where it lived, when and where it flies, how and what it eats, and drinks, how, when and where it rears its young, how it breaths and the differing habits of the male and female This required long, tedious observations, innumerable experiments and a consuming passion to learn the truth.

About this time we wanted to dig a canal across the Isthmus of Panama, but malaria and other diseases had whipped the French who

tried it and would as readily have prevented us from finishing this work. So the United States sent one of its army officers (Col. Gorgas) to Panama to make it possible for white men to live there long enough to do this job.

He took his microscope, his books, his dyes, his solutions, his laboratory glassware and other paraphernalia and with the help of assistants, from typists to ditch diggers, he turned this deadly pest-hole into a health resort and then the canal was dug.

What Col. Gorgas really did was to apply for a useful purpose, facts discovered in many distant parts of the world, demonstrated to be true by innumerable precise tests, recorded so that the civilized world might keep them, published so the world might know them and collected and arranged into a complete and finished chapter on malaria in the science of epidemiology.

Such a marvelous achievement as this was impossible for even the great men of the Golden Age of Pericles. Some of them, with an acumen which surprises us, figured that malaria was due to a minute living organism associated with swampy regions and pestiferous insects, but it was a mere useless guess and pitifully impotent to stay the malaria which devastated Greece, destroyed its culture and cast a malignant weakness on its people to this day. *Adequate methods of precision and means for diffusion of knowledge could have saved them as it does us.*

Mesopotamia, Egypt, China, India, Greece and Rome all had wonderful flourishing civilizations, but without real sciences. China today is a typical country of this past type with a great culture of its own, in art, philosophy and handicraft having reached superior heights, but nevertheless scienceless and stagnant.

We, too, would have been as China is, were it not for the Renaissance. The name Renaissance is given to that period of history following the dormant, semi-barbarous, superstitious, ignorant, cruel Dark Ages when the whole European world made such amazing changes for the better.

In those days they did have great universities with thousands of students attending them, but these were only for nobles and churchmen. There were no schools for common folks at all. There were only two classes of people then, the nobles and clergy and the peasant. There was no middle class.

In their schools and universities they taught church law, theology, grammar, rhetoric, logic, music, metaphysics, languages, psychology, ethics, politics, medicine, surgery, law, physics and mathematics. There were no laboratories. Even anatomy was taught without dissections and was largely erroneous. In the whole curriculum there was not a science as we know them, not one group of indisputably sound tested truths. Speculation and superstitious theorizing were the basis of learning. These schools could not have brought the great change.

Gunpowder was introduced about this time and has been credited with causing the downfall of the feudal system and so bringing the Renaissance.

Navigation became bolder with the compass, and the Americas and much of Africa and Asia were opened to Europe and this has been said to have stimulated the new life.

The gold seized by the Spanish in the New World has been credited with preventing a throttling financial situation and bringing a revival of progress.

The Crusades reopened Europe to Asiatic culture which has been assumed to be a great factor in this rebirth.

There developed in the latter part of the Middle Ages a middle class of people made up of tradesmen and craftsmen. The great guilds and commercial organizations developed then and this middle class has been considered the backbone of the Renaissance.

Commerce developed with trade routes to the most distant countries. Large commercial cities were built, large fortunes were founded and the revival of learning has been attributed to the riches and travel.

Accountants were needed when commerce came and the cities found it necessary to found schools for the new middle class and the common people. They were called writing and reckoning schools and for the most part taught the three R's and some languages. This founding of public schools has been given as a factor in the change.

When Constantinople fell to the Turks in 1453, its scholars fled to Europe and carried with them the great Greek classics which were added to the Latin and gave a broad culture with a new stimulus to thinking in the manner so highly developed by the Greeks. This influence has been given great credit for its part in the renewal of learning.

The Reformation in Church thought and church practice which accompanied the Renaissance was a large factor in the change. Men learned from a direct study of the Bible the doctrine of the brotherhood of man which Christ had taught. They learned a doctrine of equality which has had a great part in ending feudal rules and autocratic government. Every man learned he had a right to think as he chose,

to live in just relations to his fellow men, and not be the object of every capricious mood of a superior. He learned he could rise as high and go as far as his merit could carry him.

The logical outcome of such a new philosophy of life was to teach men to respect the rights of others as they wanted theirs respected and the cruelties of the past rapidly faded. The thirst for knowledge increased and the resulting demand for freedom of thought and action was deadly to the old caste system.

So the Reformation and the Reformers who led in it are often believed to have made the Renaissance.

All these factors acting in a caste-bound, near barbarous type of civilization no doubt would create a new state of affairs, they might bring again a culture such as the Greeks had had, great in the arts, but they alone could not have led to the sciences and present enlightened age. Ninety-eight per cent of the people would still have had to do the most arduous kind of work from sun to sun to support them all.

Such a civilization could never have freed itself of heavy manual labor nor protected itself from ruinous epidemics which wrecked previous nations. It probably could have reached a stationary level somewhat higher than that of China.

But these Europeans had two agents at their disposal which gave them the means to gather new knowledge at a rate never before experienced. In fact, this came so fast and caused such frequent upsets that we have not yet adjusted ourselves to them and the end is not yet.

There two factors were: 1. Practicable printing; 2. Usable arithmetic.

Men of the Stone Age in the island of Malta used dies to make desired impressions. The Greeks and others used dies to stamp signatures. The Chinese used wooden blocks to print coarse characters, but the elaborateness of the characters and their enormous numbers made printing impracticable.

The Arabs captured eight Chinese paper makers in one of their numerous fights at Samarkand about the 7th century, A. D. From them they learned the art of paper making and then they introduced it into Spain in the 12th century when they occupied that country. From here the process spread all through Europe.

Paper furnished a smooth, uniform, thin sheet, easily obtained, which has remained the ideal material for printing and with a suitable phonetic alphabet of only a few characters, printing became easy and inevitable. Inside of 100 years after printing was started in Europe presses were everywhere and book making became a passion.

This printing gave the means of recording and diffusing knowledge for all men. Without it a science could not develop.

The Arabs also contributed the other agent about the same time.

The whole world used some modification of the old Indian system of numerals, in Europe it was the Roman arithmetic. This we all know a little of for it is still used to mark the hours on clock dials, to number chapters and to give the year of printing on the fly leaf of some books. But it is so cumbersome and so coarse that its use has always been limited to simple problems.

Multiplication and division were almost impossible with it. Addition and subtraction were awkward. Fractions were not used and decimals were unknown so that the fineness, accuracy, and workability for the sciences were absent.

The Arabs took this old arithmetic and worked wonders with it. They gave each character a value according to its position, as units, tens, hundred, etc. They invented the zero to show the vacant places. The zero is considered by some the greatest invention of the world. They invented the decimal, giving each character a fractional value according to its position from the starting point. These three modifications in the system of numerals made arithmetical processes such as multiplying, dividing, adding, subtracting, comparatively simple; they also made it possible to designate the infinitely fine or infinitely great; they gave a type of arithmetic capable of great development by others such as has taken place in logarithms, calculus, etc.

With such an arithmetic great accuracy was possible for the first time. Methods of precision were rapidly introduced and men of scientific tendency began to deal with the exact and concrete instead of the general and abstract. They could compare and measure with ease and accuracy and naturally began to check up on their beliefs.

Instruments were rapidly invented with a preciseness hitherto unobtainable and unknown. Vernier (1580-1637) invented his scale for accurate measuring.

Optical lenses were figured out and ground with mathematical accuracy. Then the compound microscope, the telescope, and later the spectroscope were invented. Accuracy of time measurements were developed with the inventions of the watch and the clock. Weighing of an almost unbelievable delicacy was early in use.

The unsatiable curiosity of man, given these new means of discovery, pushed him on to solving the riddles of the universe with a rapidity

never possible before. The superstitious beliefs in the demoniacal and other supernatural forces now began its great retreat before the unfolding by the sciences of the orderliness and impersonal character of natural forces.

They soon found that some of the unverified and unverifiable surmises of the old Greeks as to the solar system were true. They proved them and soon knew the heavens so well that they could accurately locate themselves on the earth by observations and figuring. The science of navigation was then born and sailors became bold explorers instead of timid shore followers.

For hundreds of years explanations for the constitution of matter as deduced from observations were extremely absurd . It was thought that when anything burned a mysterious element called phlogiston freed itself from the substance and disappeared in its attenuation.

Robert Boyle (1627-1691) put an end to this honored nonsense when he burned metals and found they increased in weight, showing something was added to them. At that moment the old chemistry, a child of the imagination, met its death blow and a new chemistry, born of mathematical precision, came into being.

Physics was removed from the realm of bizarre speculation to a firm study of sound, heat, light, electricity, magnetism and radiant energy. The conceptions of energy were far from the truth and of no use before.

Mechanics, a knowledge of mechanisms and structures, developed as a new science and made possible some of the great wonders so commonplace to us.

The manifestations of life were examined and experimented with until a whole biology has resulted which has unravelled for us the most interesting problems of them all. Bacteriology, one of its branches, has removed the mystery as no other study has done. It has given men the means of shaking off his greatest foes.

It is unnecessary to point out to you the whole change in the aspect of life for civilized people following the exact sciences. The most important developments have followed the practical application of mathematics, chemistry, physics and mechanics in harnessing the forces of nature with turbine, steam engine, dynamo and motor and freeing mankind of much of his most grinding and narrowing toil as well as opening up unlimited new possibilities in comfort.

The transportation of words, writing, printing, commodities and people themselves has enlarged every man's knowledge and interest from a limit set by his own walking range to one that is world wide and encompassing an inexhaustible store of help and information.

I have dwelt at length on the growth of the exact sciences because it is usually not covered by the available histories and that full credit may be given to one of the greatest, if not the greatest of man's inventions, the Arabian Arithmetic.

Without printing and this arithmetic, the present advanced civilization could never have developed, with them it was inevitable that it should develope!

(The End).

WAYNE COUNTY MEDICAL SOCIETY PRESIDENTIAL ADDRESS

WILLIAM J. STAPLETON, JR., M. D.

Mr. President, Fellow-Members of the Wayne County Medical Society:

This evening, as retiring President of our Society, it is quite proper for me to give a short resume of the past year. On an occasion like this one has a feeling of both pleasure and regret. The pleasure is twofold—the being relieved of the duties and responsibilities of the office, and the fact that these duties are to be taken over by a gentleman who is so capable of filling the office as our new President —Dr. Henry Luce; and for him I hope you will all work with the same spirit you have manifested towards me. The regret I have is in the fact that we have not as yet obtained a new and fitting home for our Society—one of the largest in the world; this task I leave to our new President.

At this time I want to express my grateful appreciation to the Board of Trustees, the Council, the Chairmen and members of the various committees, and to every member of this Society who has so faithfully worked with me this year. Without ths co-operation no Society can thrive. With it any Society can not help flourishing. Especially am I indebted to the Chairman of the Program Committee, Dr. Henry L. Clark, for his most interesting and scientific programs. Never has the Society had such large audiences as it has had during the last year; and the credit for this in a large measure rightfully belongs to him.

To Dr. B. H. Larsson, Chairman of the Entertainment Committee, fell the burden of providing entertainment for the members and officiating at the dinners given to our guests—to him we say "Thanks."

To Dr. William Reveno, Editor of the Bulletin, I also feel greatly obligated for his work as Editor and his splendid spirit of co-operation. The Bulletin has been kept up to its high standard and has at all times shown a desire to give members all news of interest so that they might be informed of the manifold activities of their Society. The Bulletin has tried to give a square deal to everybody.

To the Secretary of the Society, Dr. Richard M. McKean, I wish to extend thanks for his efforts in making the year's work easy. You will notice that the Wayne County Medical Society is now represented monthly in The Journal of the Michigan State Medical Society by a report from our Secretary, giving briefly the work done.

The work as President has been rendered a pleasure by the untiring work of our house secretary, Mrs. Helen Spencer, and I wish at the time to express to her my heartfelt thanks.

Now having given honor where it is due I wish to take up briefly some of the problems of our Society.

PROBLEM OF THE BRANCH SOCIETIES

Among the problems to the solved is that of the various so-called "Independent Societies" such as the East Side, West Side, Highland Park, etc. We feel that the Wayne County Medical Society is the parent body, the truly respective branch of the National body, and its position should in no way be interfered with by these branch societies. While it is wholly desirable for the Branch Societies to increase in size and scope and so fill, in every way, the needs of their members, the bids for power which some of the branch organizations are making threaten to disrupt the parent Society and are therefore to be strenuously curbed if the welfare of the Wayne County Medical Society is to be guarded. It would seem that if we had a new building these societies could use it for their meetings, thus making the Wayne County Medical Society Building the nucleus around which all the medical activities of our city would revolve.

TIME OF MEETING

Then there is the question as to the changing of the night of meeting. This question arises because of the numerous branch societies having a multiplicity of meeting nights. This is a very important matter and a change should only be considered after a long and careful examination of all phases of the problem. It must be borne in mind that our meeting night can only be changed by a vote of the entire membership. We do not object so much to the changing of this night as we do to the other idea of having only two meetings a month. This would put the Society out of business. A committee has been appointed to work on this problem and we trust they will realize the great responsibility they have and act accordingly. The County Society, as a definitely established unit, should not be tampered with in any way but should be continually fortified by the combined efforts of every member to the end that it is afforded every facility for the proper carrying out of its plans.

DUTIES OF THE COUNTY SOCIETY

A Society such as ours has at least three important duties. These have often been stated, but we feel their repetition will not be amiss:

(1) Cultivation and advancement of the science of medicine.

(2) Promotion of the character and honor of the physician.

(3) Elevation of the standards of medical education.

Our programs during the past year as well as our efforts towards maintaining research facilities constitutes at least partial realization of the first goal. The second aim is to be realized only through the cognizance of every one of us of the importance of our positions in the community, and our honest attempts at giving always the best that is in us. The third duty as well requires the combined greatest efforts of every one of us for proper fulfillment. What is needed in these United States of America is a uniform law defining the Practice of Medicine —so that it will not be necessary every second year to have a Legislative Committee working day and night to watch for and prevent the passage of laws for the licensing of various groups that wish to enter the practice of medicine through the back door. At this time I wish to extend my sincere thanks to Doctor Loucks and his committee for the very efficient work done by them this past year. Unless one is interested, it is quite impossible to realize what goes on in the Legislative Halls during the Sessions. We owe more to this committee than our members have any idea of. It has meant real self-sacrificing work. This continuous guarding against legislative egorts to permit the cults to practice medicine shows the necessity of our co-operation with our parent Society, the American Medical Association, in its effort toward the attainment of a uniform Medical Practice Act.

EDUCATION OF THE PUBLIC

In order to obtain any such enactment of law as suggested above, it is necessary first that this great American public be educated. This is being done by Hygeia and the Gorgas Foundation in the country at large; locally, through our Beaumont lectures and the lectures given under the auspices of the Public Health Committee. (Under the able direction of Dr. Dempster, this committee has delivered lectures to thousands of lay people during the last year.) Education of the public is after all the most effective way of solving our problem. The searching light of publicity must shine down intot the dark places, and in doing this we should use all ethical means to give the right kind of medical knowledge to the public through the newspapers, magazines, lectures to the Parent-Teachers Associations, and by means of the greatest of all modern publicity agencies—the radio. The Society should have a committee from which these various publicity agencies could get definite and accurate information regarding medicine. We should be the ones to furnish the press with bona fide medical news and these agencies should cooperate with us to the extent that all medical news should be authoritative and of real value to the public.

CLINICAL BULLETIN

Among the worth-while things accomplished this last year we consider the publication of the "Clinical Bulletin" of distinct value in placing Detroit on the medical map. This Bulletin we hope will be developed to the point where it will mark the realization of one of our finest hopes: the establishment in Detroit—the Dynamic—of a real postgraduate school. The real solution will probably take some time—the only feasible means being some form of an endowment for the purpose, as well as the unstinted support of all the members. The Society is indebted to Dr. Alfred Whittaker and his committee for this long and arduous task in getting this Bulletin started. My sincere thanks go to them for this epoch in the affairs of our Society.

BEAUMONT LECTURES

Along the line of postgraduate work, the Beaumont Lecture series, through the able work of Doctors Davis and Donald and their committee, have placed before the Society some highly interesting speakers and material. We all enjoyed the talks of Doctors Mayo and Plummer on thyroid conditions, while Dr. Osgood's lectures on the history of Orthopaedics was singularly epoch-making. We trust that at least one or two evenings each year will be devoted to the historical side of medicine, since this, to my mind, is one of the most fascinating subjects in the whole realm of medicine.

PERIODIC HEALTH EXAMINATIONS

Ever intensely interested in Postgraduate Work, I feel that we as a profession are neglecting one very important phase of this work. We are allowing organized non-medical groups to do what we as physicians should do ourselves. The Life Extension Institute and others are doing the job because we are not. As part of my address, I am including the editorial by our Editor, Dr. Reveno, entitled "A Course in Physical Diagnosis Awaits Us at Home":

"A COURSE IN PHYSICAL DIAGNOSIS AWAITS US AT HOME

"A graduate course in Physical Diagnosis—a

course not to be equaled in value by those given at any of the colleges—is waiting for us right in our own offices every day. This course, which is to be carried out on those of our patients whom we can convince of the value of Periodic Health Examinations, offers, besides the opportunity to practice medicine constructively, an excellent occasion for all of us to brush up and learn to evaluate physical findings in the so-called well individuals. This is one of the phases of the practice of medicine which has failed of proper development because of our being too deeply engrossed in the treatment of those actually ailing; but because of our experience with the latter type of individual, the task of learning to evaluate and correlate normal or negative findings will be enhanced if we only proceed to apply ourselves to this very pressing job. This first hand study of Physical Diagnosis on our own clientele fill not only be remunerative to us, but will assuredly cost much less than a similar course obtained only after traveling long distances to popular clinics at great expense and loss of time. (We are not discounting the value of such practice, but we do want to encourage the cultivation of the facilities directly at hand.)

"A few of our members have been practicing pre-clinical medicine for some little time, and have gained many of the benefits resulting therefrom. A great many, however, have so far failed to avail themselves of opportunities offered by various agencies to become acquainted with this form of medical practice, and, as a result, are destined to become back numbers in the profession.

"By all that is right, the practice of pre-clinical medicine, or the periodic examination of the well, belongs to the medical profession. Our failure to avail ourselves of this opportunity to fulfill what is coming to be considered a necessary and wise procedure will result in other agencies taking this work from us. We've already had too much of this thing.

"Let's begin our course in Physical Diagnosis now."

NEW COMMITTEES

You have undoubtedly noted that a number of new committees have been appointed during the past year. I might say without qualification that all of these committees were appointed to perform or investigate definite non-hypothetical duties.

The first of these was the appointment of Dr. Emil Amberg as representative of the local Society on the city's Smoke Abatement Committee. The representation of the medical profession in such a group is a very necessary act, since the questions considered affect the public health directly.

WELFARE COMMITTEE

After careful consideration, the Council authorized the appointment of a group to be known as the Welfare Committee. This was the result of several unfortunate episodes in which it was found that cerain members of our Society were suffering from the want of the common necessities of life. I feel deeply regarding these matters and at this time wish to ask you all to report to this committee knowledge of any of our members who may be in need and yet be too proud to ask. Let us remember what the "Great Physician" said about helping one another.

RESEARCH COMMITTEE

As a result of a letter from Dr. S. Edward Sanderson, the Council approved the appointing of a committee to correlate information among our members regarding research work. It is proposed that the Committee endeavor to develop opportunities for those who desire to do research work. This is a step in the right direction. Suggestions to the Committee will be highly appreciated.

CRITICISM OF THE SOCIETY

During the year the old question of the senior members dominating the discussions was brought forward. As President, I have extended at every meeting night an invitation to one and all to take part in the discussions. If anyone has not done so it is his own fault and not that of the Society.

AMERICAN CONGRESS ON INTERNAL MEDICINE

The annual meeting of the American Congress on Internal Medicine and the American College of Physicians will be held in Detroit this coming year. From a knowledge of previous meetings of this organization I would request a cordial response to any requests made by the chairman of the committee on arrangements, Dr. C. G. Jennings. Detroit must not fall behind the other cities, either in scientific or social features. It means a lot of work, so let us all put our shoulders to wheel and show what medical Detroit can do.

CONCLUSIONS

We will succeed only by keeping our County Society as an efficient, united organization, with branches, yes—but as branches of a tree—all working for what the County Society stands for. The cultivation, elevation, and promotion to a higher and higher plane of the practice of medicine for its members and for the public at large and a close affiliation with the State Society and through that with the American Medical Association is highly desirable so that our united efforts will be directed towards the realization of the finer purposes of the practice of medicine.

REPORT OF A CASE OF SHOE DYE POISONING

S. A. SHELDON, M.D., Lt., (j.g.) M.C., U.S.N.R—V.
SAGINAW, MICHIGAN

The following case was observed during the annual cruise of the Saginaw Naval Reserve.

Bert R.—, a robust seaman, aged about 25, weighing 150 pounds, took his shoes to a repair shop, at 7 a. m., Monday morning, to have them dyed black. He called for them at 9:30 a. m. of the same day and wore them away. The day was very hot and he sweat copiously. About 1 p.m. his sister asked him what he had been eating as his lips were so "blue". He noted that at about the same time his head began to ache. He reported to the Naval Armory at 4 p.m., of the same day, prepared to go on the annual cruise. Shortly after 4 p. m., medical inspection was held and the man's extreme cyanosis was noted. Blood pressure, heart sounds, pulse rate, and hemoglobin were found to be free from any abnormality. He complained of headache, slight weakness, and some vertigo. Upon questioning, the fact that his shoes had been freshly dyed was brought out. He was ordered to wash his feet and change socks and shoes, which he did at once. The man was allowed to embark, but was put to bed upon arrival aboard ship. He was still extremely cyanotic and complaining of headache at 9 p. m. that evening. Next morning his headache had disappeared and in another twelve hours his cyanosis had. He reported "feeling good" from then on.

Inquiry at the shoe shop where his shoes were dyed, brought out that the dye used contained nitro-benzene. There was on the shoe dye bottle label, a warning not to wear freshly dyed shoes for at least 24 hours or until the dye was thoroughly dry. The patient says he received no warning.

PUBLIC HEALTH ACTIVITIES

Edited By

MICHIGAN DEPARTMENT OF HEALTH

TYPHOID FEVER IN MICHIGAN

Typhoid fever is rapidly decreasing in Michigan. It is not uncommon to hear a physician say that he almost never sees a case. Twenty-five years ago no clinician would have thought of making such a statement. Good water, pure milk and food supplies, and the detection of carriers have all contributed to the lessened prevalence of typhoid. The extent to which these protective measures have been utilized, and the prospects for further reduction deserve consideration.

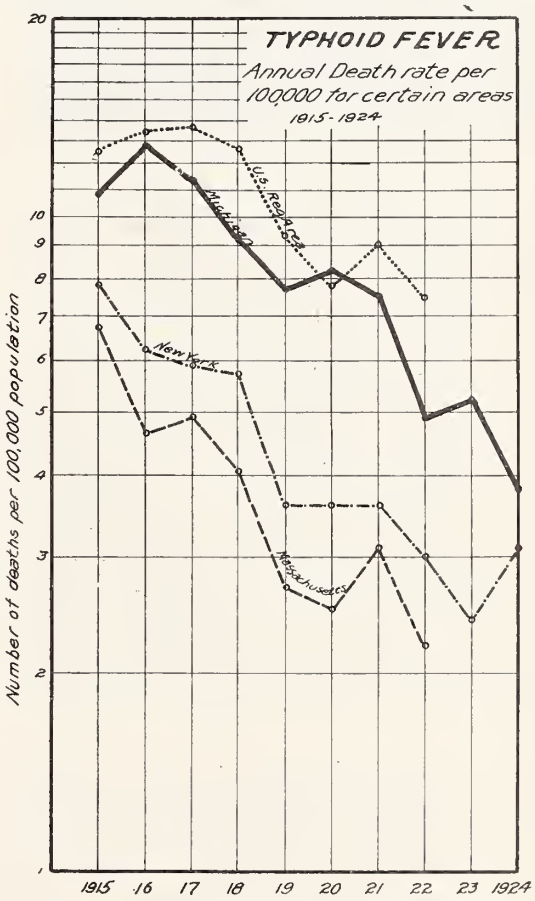
The mortality rates from typhoid fever for the United States Registration Area and the states of Michigan, New York and Massachusetts for the years 1915-1924 are shown in the following table and the accompanying graph. The death rates in the Registration Area and for Massachusetts are not available for 1923 and 1924.

TYPHOID FEVER ANNUAL DEATH RATES PER 100,000 IN CERTAIN AREAS, 1915-1924

Year	United States Registration Area	Michigan	New York	Massachusetts
1915	12.4	10.9	7.8	6.8
1916	13.3	12.8	6.2	4.7
1917	13.5	11.3	5.9	4.9
1918	12.6	9.2	5.7	4.1
1919	9.2	7.7	3.6	2.7
1920	7.8	8.1	3.6	2.5
1921	9.0	7.5	3.6	3.1
1922	7.5	4.9	3.0	2.2
1923	.....	5.2	2.4	....
1924	.....	3.8	3.1	....

Michigan's typhoid fever death rate is falling more rapidly than that of either of the other two states—a gratifying, but after all not an especially laudatory observation. Geographically all three commonwealths are in about the same latitude, and there are no remarkable differences in heredity or environment among the people who live in them. Notwithstanding these fairly close resemblances which make the three favorable groups for comparison, the New York and Massachusetts rates are lower in each of the ten years than our own. We are now approaching, but have not yet achieved, the low mortality of two eastern states whose inhabitants have understood typhoid fever prevention more thoroughly, and practiced it more consistently and for a longer period of time than Michigan.

The Registration Area includes thirty-seven states and certain cities, covering 85 per cent of the population of the United States. Several of these units are in climates where typhoid fever is endemic the year around, and where the problems of water supply and sewage disposal are a great deal harder to solve than our own. In some of the other states not very much public health work has been done. As



compared with the Registration Area, Michigan's typhoid fever death rate is more encouraging. Our rate has been lower each year and is falling more rapidly than that of the Registration Area. Typhoid fever is axiomatically the infection whose prevalence depends upon the development of the community's sanitary conscience, and education in the control of communicable diseases. Apparently, Michigan has gained more ground in this direction than the country as a whole.

Bettering the average for most of the United States is not the ideal, nor is reducing our typhoid fever mortality rate to the level of New York and Massachusetts sufficient. This disease is absolutely preventable, and infallible measures for its elimination are at everyone's disposal. Michigan should cease having any

typhoid fever deaths. As a matter of fact, 149 persons died from typhoid fever in 1924, an indication that there is still a great deal to do. This year's records do not promise to be any more favorable. As examples of situations which occur often and needlessly, your attention is invited to a review of two recent Michigan outbreaks.

In August, nine persons became ill with typhoid fever at almost the same time. They lived in a city where the water supply is above suspicion. They had not attended any picnic, or large public gathering. Nor was it found that they used butter, cheese or green vegetables from a common source of supply. All of the patients did patronize the same dairy. One of them, a child, visited in the city for a day and was given this variety of milk only on that occasion. Another patient bought a single bottle of the milk to drink—ordinarily he did not buy from the suspected dairy. The employes of the dairy were all questioned. Widals done and specimens of feces examined. The results were negative, but it was learned that an itinerant worker had been employed at the dairy for a short period—just about two weeks before the patients became ill. This man has not yet been located, but it is very probably that he is the carrier who caused the outbreak. At any rate, typhoid fever was spread by infected milk and the point to be emphasized is that this milk supply was not pasteurized. The city allowed the dairy to sell raw milk—a source of danger to the public health even where the milk is produced under supposedly ideal conditions.

Osler's dictum of "food, fingers, and flies" comes to mind in describing an epidemic during July and August in an Upper Peninsula village. The working population of the town is almost exclusively in the service of a lumber company. A great many of the residents are foreign born, and the community always includes many transients—"floaters" who go from one lumber camp to another. There is no municipal water supply, or no system of sewage disposal. Water comes from shallow wells, often located so that the sewage from the privy must drain down the slope into the well. Ninety per cent of the wells were found to be grossly contaminated. Screening is not very common in spite of the large numbers of flies. The disposal of garbage and refuse is left entirely to the individual citizen's conscience. Most of these people keep their own cow, a few buy milk from a neighbor and others use condensed milk only.

There have been ten cases of typhoid fever, and eleven cases of a condition described as "bloody diarrhea" in the village this summer. A detailed investigation of the epidemic failed to reveal any individual carrier, or any one source of infection. Typhoid fever might have been spread in so many ways that one could not determine by which method transmission had actually taken place. The investigator began a series of typhoid-paratyphoid inoculations on all the population of the village who would accept this protection—that being the only method for controlling the situation while the exact cause remains a mystery. It goes without saying that the village will continue to have cases of typhoid as long as it remains, from a sanitary viewpoint, one of the state's most disreputable communities. Under such conditions, a single carrier may do an enormous amount of harm.

The two 1925 outbreaks reviewed are typical. Similar occurrences might happen in a number of Michigan cities, villages and townships. There are large communities who use carelessly supervised raw milk supplies. Safe drinking water has not been universally provided, and there are other villages quite as unsanitary as the one which has been described. In other words, the elimination of typhoid is not an accomplished feat of preventive medicine.

The physicians of the state can do more than any other group of individuals toward remedying the situation, because while such technical matters as water supply and sewage disposal systems are the function of engineers, it is the physician who has at his command the ultimate source of new cases. The doctor prescribes for the patient and has the opportunity of keeping that patient under supervision as long as the safety of the public requires. No new case of typhoid is possible except by the ingestion of typhoid bacilli, and typhoid bacilli can be acquired only (directly or indirectly) from the fecal matter of another case or a carrier.

The first and the most important step in typhoid control for the physician must be the careful observance of the rule requiring two negative specimens of feces taken at weekly intervals before the patient is released. Universal adherence to this regulation, together with eliminating possibilities for the wholesale transmission of the disease by milk, food and water would entirely wipe out Michigan's typhoid mortality. —G. H. R.

PROTECTING ROADSIDE WATER SUPPLIES

The Michigan Department of Health has realized for some time that an important pub-

lic health problem is presented by the water supplies likely to be used by highway travelers. The supplies causing anxiety are those prominent enough along the line of automobile routes to tempt travelers to use them for drinking purposes, such as those at hotels, automobile camps, summer resorts, gasoline filling stations, roadside lunch stands, and schools.

The published results of investigation of roadside water supplies in Pennsylvania during the summer of 1924 gave an idea of the small percentage of such supplies which might be expected to prove safe in Michigan. Fortunately for the traveling public, our results were more favorable than those in Pennsylvania.

When it had been decided to undertake a program for the protection of roadside water supplies, considerable thought was given to the advisability of marking all the sources examined, both safe and unsafe, according to the decision reached on the basis of a field inspection and laboratory analysis. It was finally decided that it would be best to mark with the unsafe sign only those drinking places which were manifestly unsafe and to advertise along the roadways the desirability of care on the part of the tourists in choosing a source of drinking water marked with a safety sign. For this purpose a sign 14 inches by 27 inches was prepared which is reproduced in Figure 1. These are intended to be erected along the principal highways at prominent points about five miles apart.

FIG. 1

The supplies found to be safe for drinking purposes were marked by the sign, Figure 2,

FIG. 2

7½ inches by 14 inches. These two signs are made of sheet iron and enameled in the colors corresponding to the 1925 license plates, black letters on light gray background. Figure 5 shows the marker for unsafe supplies, which is the same size as the safe sign but is made with white letters on red background.

FIG. 3

Due to delay in arranging appropriation and obtaining equipment, the work was not started until July 17th. The last sample was collected on September 11th. In order to make this work of the greatest value it should be started as early in the spring as possible, probably about the first of May, and it should be carried on only as rapidly as is consistent with service.

The method of doing work was as follows:

An automobile was provided large enough to carry a supply of sample bottles sufficient to last several days, the necessary material for packing and shipping the samples, a small refrigerator, as well as the miscellaneous baggage necessary for a somewhat extended automobile trip. Two men were used in this car during this season's work, but it is doubtful if two are necessary. No traveling laboratory being available, and fairly prompt and reliable mail service being assured, it was decided to ship the samples to Lansing each day. It was usually necessary to discontinue taking samples a little past the middle of the afternoon in order to reach a mailing point in time to properly pack the bottles and see that they were put on the train.

Considerable care was necessary in ascertaining the time of departure of mail because the information on this subject usually obtained relates to first class mail, and not all of these mails included parcel post. For shipping, paper cartons in the knock-down form were carried in the car and enough corrugated paper to wrap around each bottle. Out of over 402 samples, two in the first shipment leaked out and one was broken later. The packages were mailed the latter part of the day so as to take advantage of the coolness of night travel. Dur-

ing the day the samples were kept in the home-made box in which a little ice could be carried if necessary.

Blanks were provided for a complete description of the source of each sample, with a place for the laboratory results to be entered. These sheets were filled out in duplicate for each sample. The original copies for the day's work were mailed first class to the laboratory at the same time the samples were sent by parcel post. The copies were retained as a guard against loss in the mail and for further use in the office of the Bureau of Engineering.

Each sample was given a serial number and the sampling points were spotted on county maps which were drawn to a scale of about three-fourths inches to the mile. The number and description of the source was also placed on the map beside the spot. This was for a permanent record and to enable the person who followed to identify the source for marking.

A second car followed about two weeks behind the first one. This gave time enough for the samples to go through the laboratory and for a sufficient number to be reported at one time to prevent any break in the work of the follow-up man. In the meantime a written report was sent to the owner of the supply giving the decision as either safe or unsafe. When the second man arrived he asked to see the letter. This gave him a check on the identification of the sampling point and enabled him to check with the owner's report and observe his attitude toward the work. It proved to be important that the follow-up man be a sanitary engineer or at least a person having considerable experience in water supplies and acquaintance with laboratory methods, since it is his duty to visit all points where water samples are collected and talk with the owners, explaining to them what the state is trying to do and advising them to make whatever improvements seem desirable.

Many persons who received unsafe reports failed to realize their significance. Some were found who could scarcely read the English language and many did not take the situation very seriously and consequently did nothing to make any change.

Four hundred and twenty-five samples were taken, of which 269 were finally decided to be safe, and 157 unsafe. The per cent of safe samples, therefore, was 63.3 per cent. A complete study of the results has not yet been made and no comprehensive summary is yet possible.

—E. D. R.

PREVALENCE OF DISEASE

September Report—Cases Reported

	August 1925	Sept. 1925	Sept. 1924	Average
Pneumonia	137	185	143	156
Tuberculosis	247	632	405	426
Typhoid Fever	114	153	117	194
Diphtheria	200	225	334	622
Whooping Cough	788	652	453	405
Scarlet Fever	269	353	489	529
Measles	109	70	148	112
Smallpox	30	17	44	66
Meningitis	5	9	10	9
Poliomyelitis	11	19	285	47
Syphilis	1128	1444	1302	875
Gonorrhea	801	1142	1250	1061
Chancroid	8	16	11	14

CONDENSED MONTHLY REPORT

Lansing Laboratory, Michigan Department of Health

September, 1925

	+	—	+—	Total
Throat Swabs for Diphtheria	.....	.....	....	2523
Diagnosis	37	332	....	.....
Release	78	180	....	.....
Carrier	5	1853	....	.....
Virulence Tests	11	27	....	.....
Throat Swabs for Hemolytic Streptococci	.....	.....	....	601
Diagnosis	211	156	....	.....
Carrier	23	211	....	.....
Throat Swabs for Vincent's	45	322	....	367
Syphilis	.....	.....	....	10947
Wassermann	869	4627	67	.....
Kahn	978	4367	39	.....
Darkfield	.....	.....	....	.....
Examinations for Gonococci	227	1941	....	2168
B. Tuberculosis	.....	.....	....	365
Sputum	101	255	....	.....
Animal Inoculations	1	8	....	.....
Typhoid	.....	.....	....	323
Feces (Includes Brightmoor Survey)	26	156	....	.....
Blood Cultures	3	40	....	.....
Urine	1	5	....	.....
Widal	32	60	....	.....
Dysentery, Inc. Brightmoor Survey	.....	.....	....	131
Intestinal Parasites (Includes Brightmoor Survey)	.....	.....	....	25
Transudates and Exudates	.....	.....	....	362
Blood Examinations (not classified)	.....	.....	....	397
Urine Examinations (not classified)	.....	.....	....	661
Water and Sewage Examinations	.....	.....	....	817
Milk Examinations	.....	.....	....	53
Toxicological Examinations	.....	.....	....	4
Autogenous Vaccines	.....	.....	....	15
Supplementary Examinations	.....	.....	....	498
Unclassified Examinations	.....	.....	....	242
Total for the Month	.....	.....	....	20499
Cumulative Total (Fiscal year)	.....	.....	....	57500
Increase over this month last year	.....	.....	....	2433
Outfits Mailed Out	.....	.....	....	19991
Media Manufactured, c.c.	.....	.....	....	583460
Diphtheria Antitoxin Distributed, units	.....	.....	....	18697000
Toxin-Antitoxin Distributed, c.c.	.....	.....	....	25370
Typhoid Vaccine Distributed, c.c.	.....	.....	....	1761
Silver Nitrate Ampules Distributed	.....	.....	....	3688
Examinations Made by Houghton Laboratory	.....	.....	....	1564

The Journal
OF THE
Michigan State Medical Society
ISSUED MONTHLY UNDER THE DIRECTION OF THE COUNCIL

PUBLICATION COMMITTEE
R. C. Stone, Chairman.....Battle Creek
C. D. Darling.....Ann Arbor
J. D. Bruce.....Saginaw

Editor and Business Manager
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Grand Rapids, Michigan

Entered at Grand Rapids, Michigan, Postoffice as second class matter.
Acceptance for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917, authorized August 7, 1918.

All communications relative to exchanges, books for review, manuscripts, news, advertising and subscriptions are to be addressed to F. C. Warnshuis, M. D., 4th Floor Powers Theatre Building, Grand Rapids, Michigan.
The Society does not hold itself responsible for opinions expressed in original papers, discussions, communications, or advertisements.

Subscription Price—$5 per year, in advance

NOVEMBER, 1925

Report Malpractice Threats Immediately to Doctor F. B. Tibbals, 1212 Kresge Building, Detroit, Michigan.

Editorials

NEWLY ELECTED COUNCILLORS

At our annual meeting in Muskegon, three changes were made in the personnel of our Council. Inasmuch as our Council is the executive body of our society, carrying out the wishes of our members and the instructions of the House of Delegates, it is a matter of interest and of concern that our members should have intimate acquaintance with the fourteen members who comprise the Council. We are therefore imparting a short sketch of the lives of the new members.

J. HAMILTON CHARTERS, M. D., DISTRICT COUNCILOR OF 1ST DISTRICT

Dr. Charters succeeds Dr. Frank Walker, who has served one term and who has ever manifested keen interest in our society affairs.

Dr. Charters was born in Bay City, Mich., Sept. 6, 1879, attended Bay City schools and finished high school there, graduated in medicine from S. V. M. C. in 1906. Located at Gaylord, Mich. In 1908, he went to Chicago and took three years' post-graduate work in surgery and gynecology, from then on acting as assistant surgeon until 1915, when he located in Houghton, Mich. He practiced there for a short time, enlisted in medical corp of the U. S. A. and received a commission as first lieutenant. After close of war he was promoted to captain of the O. R. C., which rank he still holds. In 1919 he located in Detroit, limiting his practice to surgery and gynecology, and soon after became actively interested in the Wayne County Medical Society, having always been interested in Medical Society work, having become a member of the Michigan State Medical Society and the A. M. A. in 1904.

J. Hamilton Charters

He is a member, in good standing, of the following organizations:

American Medical Association, Michigan State Medical Society, Wayne County Medical Society, Companion of Military Order of Sovereign Wars, Members of Officers' Reserve Corp, Member of Association of Military Surgeons, Charter Member of Army and Navy Club of Detroit, Member of Detroit Museum of Art Founders Society, Member of Y. M. C. A., Member of Detroit Auto Club, Member of Palestine Lodge, F. and A. M., No. 357, Detroit; Member of Palestine Chapter, R. A. M., No. 159, Detroit; Member of Eastern Lodge, I. O. O. F., No. 887, Detroit. Also holds commission as deputy sheriff of Wayne county.

It is confidently to be expected that Dr. Charters, by reason of his youth (46 years) and medical interests, will contribute much that is constructive for the continued activity of our Society in its service to the members.

JULIUS H. POWERS, M. D., SAGINAW, COUNCILOR 8TH DISTRICT

With Dr. Bruce's removal to Ann Arbor, there occurred a vacancy in the office of the Councillor of the 8th District. By the authority invested in him President Darling has appointed Julius H. Powers of Saginaw to fill the unexpired term of Dr. Bruce, and will serve until 1927.

Dr. Powers was born in New Hampton, Iowa, in 1880. He graduated from high school in 1897, from Iowa College Academy in 1898, Ph. B. from Iowa College in 1901, and one summer study at Marine Biology Laboratory at Wood Hall, Mass. Instructor in biology at Iowa College during 1901 and 1902. Received his A.M. from Iowa College in 1903 and graduated in medicine from University of Michigan in 1906, serving one year on surgical staff under Dr. de Nancrede. He has practiced in Saginaw ever since, excepting eighteen months' army service, six months of which was in France.

Julius H. Powers

It is readily apparent that Dr. Powers will fill the office and that under his direction the 8th District and the State Society will have an able and efficient Councillor.

JAMES D. BRUCE, M. D., ANN ARBOR
COUNCILOR 14TH DISTRICT

With his election as President, the office of Councillor of the 14th District, held by Dr. C. G. Darling, became vacant. President Darling appointed Dr. J. D. Bruce to this vacancy and he will serve until 1929.

Dr. Bruce needs no introduction. We append the following tabloid of his professional life.

Graduated from Detroit College of Medicine in 1896. Did country practice 1896-1904. Was in service of Dr. George Dock, University Hospital 1904-1905. Began practice in Saginaw, Mich., in 1906. 1916-1917—August to March, Canadian Army Medical Corps, Base Hospital in England. From 1917-1919, resigned British commission and accepted commission in Medical Corps, U. S. A., serving at Base Hospital No. 6, Fort MacPherson, Ga., five months; Liverpool, England, one month, and May, 1918, to February, 1919, Evacuation Hospital No. 5, France. Director of Surgical Service.

1920—Fellowship American College of Surgeons.

James D. Bruce

1921—President Saginaw County Medical Society.

1922—Elected to Council, Michigan State Medical Society, representing 8th District.

1924—Entered service of University of Michigan as Director of Department of Internal Medicine and Chief of Medical Service, University Hospital.

We, as a Society, are thus fortunate in retaining Dr. Bruce upon the Council and have the assurance that in his official capacity and as a member our interests are vested in a capable officer.

CLINICAL CONFERENCES

Dr. J. B. Jackson: It is not my purpose to take up much time this morning in reviewing the program of district conferences which has been carried on since our last annual meeting. Most of you have attended one or more of these conferences and are familiar with the general plan.

At the last annual meeting, the plan of holding all day programs in each Councillor district was proposed. It was planned to present at these meetings a high grade scientific program to the members of the district. Sixteen such conferences have been held, twelve in the lower peninsula, and four in the upper peninsula.

The general purpose has been to bring to the men in general practice the latest and best things in the science of medicine. The programs have consisted of practical presentations of subjects of general interest rather than the reading of formal papers. The ideal before us

has been to elevate the standards of medical practice.

At most of these conferences there has been a forenoon and afternoon program, with a noonday luncheon. This noonday luncheon has served the purpose of promoting good-fellowship and the increasing of interest in County Society organizations and the work of our State Society.

How well we have succeeded is for you to judge. From reports received from the membership of the different districts, we believe that the conferences have been exceedingly profitable to our members and have markedly increased interest in our County and State organizations. At these sixteen conferences nearly 1,000 physicians have been in attendance.

The present program for this annual meeting was arranged to carry out the same general plan. The scientific committees of the various sections decided to try out a program of practical talks by national leaders in the various branches of medicine, rather than the presentation of formal papers at the various sections. We are very proud of the program which has been arranged. We have a two-day program which should be of interest to every doctor in the State of Michigan.

In conclusion, let me say that the Council invites criticisms and suggestions. This is your society and it is for your benefit. If you can suggest how these post-graduate conferences and our annual meeting can be made more profitable and interesting, we hope you will do so. If we will all work together in an effort to become better men and better equipped to minister to the sick, we can deserve in an increasing degree the confidence and approbation of the public whom we serve.

(Statement by J. B. Jackson, Chairman of the Council at Annual Meeting.)

HYGEIA

Our House of Delegates at the Muskegon meeting adopted the following resolution:

Whereas, The difficulty that obstructs greater conservation of human lives and limits man's longevity is the lack of instruction and the absence of greater receipt of reliable scientific information by the people in regard to the laws of health and prevention of disease, and

Whereas, It is the unquestioned duty of the profession to employ every honorable and dignified means to increase the dissemination of reliable scientific medical knowledge and instruction, and

Whereas, An important and effective means is available in the publication, Hygeia, edited and distributed by our parent national body, the A.M.A.; therefore, be it

Resolved, By the Michigan State Medical Society,

First, that we commend to and urge our members unstinted support to this educational magazine by means of

(a) Personal subscription and maintenance of each copy upon their reception room table.
(b) Calling the attention of their patrons to the value of this magazine.
(c) Causing steps to be taken so that local reading rooms and clubs will place Hygeia upon their reading tables.
(e) Interesting school teachers and the clergy so that they may aid in creating a wider circulation of Hygeia.

Second, that when in our power to so do, we will cause the attention of local newspaper editors to be directed to each issue with the request that articles be reprinted and thereby causing greater dissemination of reliable information to the public. Be it further

Resolved, That we commend the officers of A. M.A. in their labors to supply such a publication as Hygeia and approve the monetary investment that is being made for that purpose.

Officers of County Societies and individual members are invited to observe this recommendation. Hygeia will serve you if you but give it your support. Subscriptions should be sent to Business Manager, A. M. A., 535 N. Dearborn street, Chicago, Ill.

COMMITTEE APPOINTMENTS

President Darling has made the following appointments for vacancies on our Standing Committees. It is our President's desire that these committees shall become immediately active in undertaking their duties and assignments.

COMMITTEE ON PUBLIC HEALTH

John A. Wessinger ..... Ann Arbor

LEGISLATION AND PUBLIC POLICY

Wm. C. McCutcheon ..... Cassopolis

TUBERCULOSIS

Bruce H. Douglas ..... Northville

VENEREAL

Udo J. Wile ..... Ann Arbor

MEDICAL EDUCATION

A. P. Biddle ..... Detroit

CIVIC AND INDUSTRIAL RELATIONS

L. A. Farnham ..... Pontiac

JOINT COMMITTEE ON NURSING EDUCATION

C. E. Boys ..... Kalamazoo
Wm. K. West ..... Painesdale
Frank C. Witter ..... Detroit
J. G. R. Manwaring ..... Flint
F. W. Garber, Sr. ..... Muskegon

STANDARDIZATION OF INSURANCE REPORT BLANKS

Grover C. Penberthy ..... Detroit
E. I. Carr ..... Lansing
T. F. Heavenrich ..... Port Huron
C. T. Southworth ..... Monroe
G. W. Stockwell ..... Detroit

JOINT COMMITTEE ON PUBLIC HEALTH EDUCATION

A. P. Biddle ..... Detroit

SPEAKER KING'S ADDRESS

Gentlemen:

I do not propose to bore you with a long address at this time. I have in mind a few

thoughts which I believe would be of benefit, both to the medical profession, and to the laity.

First, I am of the opinion that the medical profession of the State of Michigan should show more enthusiasm in regard to obtaining every eligible physician as a member of our State Society.

Secondly, I believe that our state organization should take a lesson from the legal profession, which absolutely controls all legal matters.

Thirdly, I believe that we should have some legal regulation which would make it obligatory on the part of every physician aspiring to a specialty, to practice general medicine for a definite number of years, taking a special course, and passing a special examination.

Fourth, I believe that we should have some changes in the training of nurses, which would make it possible for the people of moderate means to obtain the services of a nurse at a reasonable rate. In other words, nurses could be divided into two classes, those with special training, and those with limited training. The former to be utilized in hospitals, etc., where special training is necessary, whereas the second class could be utilized in the home where simple nursing is all that is required.

Fifth, and lastly, I believe that the regulations and laws governing the practice of medicine should be left entirely to the medical profession.

MEDICAL ADVERTISING AND PUBLICITY

This is a subject that has long been a debated one amongst ourselves and the public. We have never really taken an out and out stand. In recent years we have shunned serious consideration and have permitted an idle attitude to reflect our position. Events forecast that the time is approaching when we can no longer ignore the issue or the principles involved. A solution and a policy will be demanded from us. We are therefore presenting for our members' information and consideration the following editorial from the Texas State Medical Journal. We congratulate the State of Texas for its progressiveness and for the commendable spirit in which the profession is solving this problem. Michigan will profit thereby and should be inspired to pursue a similar campaign.

ADVERTISING THE MEDICAL PROFESSION

Last month we discussed the law enforcement campaign, then just getting under good headway. It will be remembered that the State Medical Association is participating in this movement upon the earnest and repeated request of the State Board of Medical Examiners, and because the Medical Practice Act itself is a child of the Association, as originally passed and later amended. The interest of the medical profession in this law is incident to the fact that through it alone can the public be protected against ignorance in the sick room, with the attendant damage to life and health, the which even the physician with all of his intimate experience in such matters, can hardly appreciate.

We are pleased to report at this time that none of the impetus achieved in the beginning of this campaign has been lost; indeed, there has been a pleasing increase in vigor of action, and a constantly increasing list of successes with a constant decrease in the number of failures. It has been now determined definitely and beyond a doubt, that courts and juries are willing to convict and that public sentiment is overwhelmingly in favor of enforcing this most beneficial law. As pointed out, the cause of failure has been largely the indifference of the public, and the prevailing idea among the enforcement officers and the courts, that the whole affair was a contest between schools of medicine, and that no matter how worthy the law may be its enforcement was impracticable. In addition to these handicaps, indictments have frequently been insufficient and prosecution without force and without proper conception of what the State is endeavoring to do.

Last year the State Medical Association conducted a determined and forceful campaign of education on the general subject of the practice of medicine, with the idea that should the lay public once understand the situation the professional life of the quack and the medical impostor would be short, and scientific medicine would be in a position to render to the public such service as the public has never dreamed of. Those of us who had been observing this movement closely were of the opinion that a safe foundation had been laid for future effort, which was about all that could be hoped for in a single season. It seems that our confidence is about to be justified. As the law enforcement campaign progresses it is found that progress is increasingly easy, particularly where the seed of publicity was planted last year. Not the least encouraging item in this connection is the response of our own members. Where our previous publicity plans were looked upon with suspicion, frequently we find the profession most ready to engage in further publicity endeavors in support of the law enforcement campaign, and where this is done, almost invariably there is success in the prosecution of violators of the Medical Practice Act. Verily, the proof of the pudding is in chewing the bag.

The relationship of the medical profession to the lay press has long been strained. On the one hand we have suspected the press of a willingness to participate in crime for the profit, and on the other, the press has felt that the medical profession was posing as an institution too holy to join in the universal advertising campaigns of modern times. As a profession, we have resented the appearance in the press of misleading quack and patent medicine advertisements, which have frequently been not only offensive from an aesthetic standpoint, but most potent for harm. The press has pointed to the desire of the physician for free advertising, and has believed him to be insincere when he protested. The privilege of inserting professional cards in the lay press, granted by the principles of medical ethics, has more often than otherwise been ignored. In most communities it is still deemed unprofessional to allow any sort of newspaper publicity, paid or free. The layman, not appreciating the need of our splendid code of professional ethics, is slow to get the difference between advertising a commodity and advertising personal skill. In the one instance it will be read-

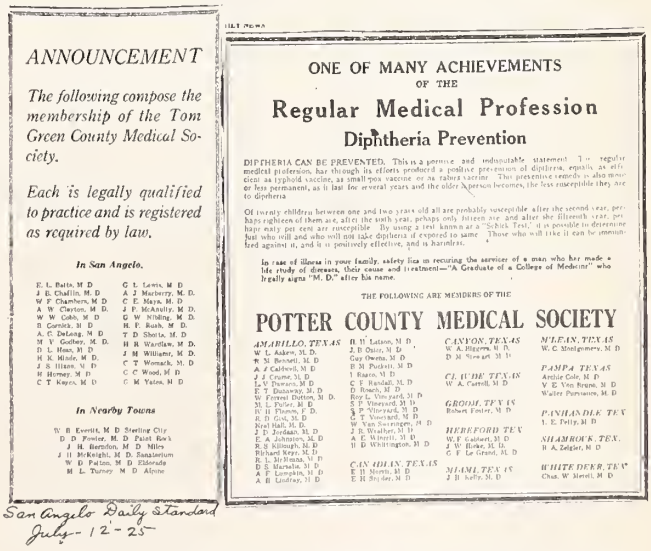
ily appreciated that the buyer can well afford to beware, whereas in the other instance the buyer has no opportunity in the world to determine in advance what it is he is purchasing. There is no easy way to decide between the individual who claims great skill for himself and does not have it and the one who claims to be superior in his field of endeavor and is. We have justly concluded, therefore, that there is no feasible and honorable way to advertise the individual in the practice of medicine. This conclusion seemed to definitely outlaw advertising.

Then came the conception that the profession might advertise itself as a whole and not the individual engaged in practice. In other words, physicians might join in paying for the distribution to the public of knowledge concerning scientific medicine, and extol the advantages to accrue from the employment of those who are informed, and the harm to come from employing those who are not informed. Objection to this idea was immediate and emphatic, but based rather on the discredit that had come to this character of advertising through its practice by the faker and the quack, than on principle. And so the matter stood for some years, until it became quite evident that the medical profession owed it not so much to itself as to the public, to insure the distribution of needed information. The quack and the practitioner of weird and peculiar systems of medicine were administering their propaganda to the people in large doses, all of which was being paid for as advertising. The people were being misinformed and misled. It would not do to accuse the press of being contributors to the injury of their readers through this sort of propaganda, and there seemed to be no feasible method of placing the facts before the public through contributed articles. Our experience in advertising our publicity campaign last year led inevitably to the conclusion that if we are to be successful in getting the people on the right track as pertains to the practice of medicine, we must approach them through the medium of the paid advertisement, coupled with such scientific articles as the press can find room to publish. The people expect it and the newspapers expect it.

With this thought in mind, the Executive Council of the State Medical Association authorized a modified plan of publicity which was, notwithstanding, a radical departure from the conservative policies of the past in regard to such matters. The idea is very simple—to permit and encourage, the advertising of the medical profession as a whole, its accomplishments in the past, competency for the present and its hopes for the future. It does not authorize publicity for the individual, except to the extent that the individual is shown to be a member of his County Medical Society and authorized by law to practice medicine. The right of the individual to inform the public through the medium of paid advertising, of the fact that he is practicing medicine, the kind of medicine he is practicing and where he may be found, is undisturbed, and is still within the control of the local group. It was felt that the press would react most kindly to the decision on the part of the medical profession to help pay the cost of distributing such desirable information, and would be inclined, in many instances, to deny advertising space to the quack; certainly to the unlicensed quack. President Dr. Rosser took this thought direct to the Press Association of the State, in an able and logical discussion of the subject. This contribution was received with astonishment and incredulity, in about equal proportions, and the comments have been variously of approval and disapproval, praise and sarcasm. But many of the papers had been won over, and many doctors had come to see the necessity of the new order of things. And for fear that we may be misunderstood, let us repeat, no principle of medical ethics as it applies to publicity for the individual will be violated in the new policy of publicity as applied to the medical profession in its connection with the health of the public.

THE ROSTER PUBLICITY PLAN

Having decided that it is right and proper to approach the public in the interest of scientific medicine and the medical profession, through the medium of paid advertisements, it remains but to decide the form and character of the ads, and what phase of our great problem shall be stressed at any particular time. Just now, when the public is being told that it is dangerous to patronize ignorant practitioners, and that the only known means at hand for determining who are qualified is the Medical Practice Act of this State, it would seem a good plan to say something about this law, its necessity, fairness and comprehensiveness, and how the public may know who of those offering their services have stood the test prescribed therein. At other times, other subjects may well be discussed, such as diphtheria and the respiratory diseases in general, during the winter, and typhoid and malaria in the summer. Any subject which will give an opportunity to impress upon the reader some helpful fact peculiar to scientific medicine, will do. Then should follow the list of the County Society membership, with the statement that each member has been licensed to practice medicine in the State of Texas. The presumption is that each individual who has stood this test is at least basically qualified to practice medicine. There should be no contention as to the actual skill and ability of any or all of those mentioned. In other words, as it is not considered genteel and ethical to stress the personal ability of the individual, so it cannot be proper to emphasize the same qualities in the group. It is quite sufficient to impress upon the reading public that those being advertised have stood the test, and, by interference, are ethical practitioners of medicine. There should be nothing to lead to the inference that all practitioners of medicine whose names are not included are ignorant



ANNOUNCEMENT

The following compose the membership of the Tom Green County Medical Society.

Each is legally qualified to practice and is registered as required by law.

In San Angelo.

E. L. Batts, M. D.
J. E. Chaffin, M. D.
W. F. Chambers, M. D.
A. W. Clayton, M. D.
W. W. Cobb, M. D.
B. Comics, M. D.
A. C. DeLong, M. D.
M. Y. Godbey, M. D.
D. L. Hess, M. D.
H. K. Hinds, M. D.
J. S. Hines, M. D.
H. Horney, M. D.
C. T. Kayes, M. D.
G. L. Lewis, M. D.
A. J. Marberry, M. D.
C. E. Mayes, M. D.
J. F. McAnally, M. D.
G. W. Nibling, M. D.
H. F. Rush, M. D.
T. D. Shorts, M. D.
H. R. Wardlaw, M. D.
J. M. Williams, M. D.
C. T. Womack, M. D.
C. C. Wood, M. D.
C. M. Yates, M. D.

In Nearby Towns

W. B. Everett, M. D. Sterling City
D. D. Fowler, M. D. Paint Rock
J. H. Burnsfon, M. D. Miles
J. H. McKnight, M. D. Sanatorium
W. D. Patton, M. D. Eldorado
M. L. Turney, M. D. Alpine

ONE OF MANY ACHIEVEMENTS OF THE

Regular Medical Profession

Diphtheria Prevention

DIPHTHERIA CAN BE PREVENTED. This is a positive and indisputable statement. The regular medical profession has through its efforts produced a positive preventive of diphtheria, equally as efficient as typhoid vaccine, as smallpox vaccine or as rabies vaccine. This preventive remedy is also more or less permanent, as it last for several years and the older a person becomes, the less susceptible they are to diphtheria.

Of twenty children between one and two years old all are probably susceptible after the second year, perhaps eighteen of them are, after the sixth year, perhaps only fifteen are and after the fifteenth year, perhaps only per cent are susceptible. By using a test known as a "Schick Test," it is possible to determine just who still and who will not take diphtheria if exposed to same. Those who will take it can be immunized against it, and it is positively effective, and is harmless.

In case of illness in your family, safety lies in securing the services of a man who has made a life study of diseases, their cause and treatment—"A Graduate of a College of Medicine" who legally signs "M. D." after his name.

THE FOLLOWING ARE MEMBERS OF THE

POTTER COUNTY MEDICAL SOCIETY

AMARILLO, TEXAS
W. L. Adams, M. D.
W. S. Bennett, M. D.
A. J. Caldwell, M. D.
J. J. Crouse, M. D.
L. V. Dawson, M. D.
E. T. Dunaway, M. D.
W. Forrest Dutton, M. D.
M. L. Fuller, M. D.
R. H. Flemm, F. D.
R. D. Gist, M. D.
Neal Hall, M. D.
J. D. Jordan, M. D.
E. A. Johnston, M. D.
R. S. Kilough, M. D.
Richard Kerr, M. D.
E. L. McHenna, M. D.
D. S. Marsalis, M. D.
A. F. Langston, M. D.
A. B. Lindsay, M. D.
B. H. Latson, M. D.
J. B. Quinn, M. D.
Guy Owens, M. D.
B. M. Pickett, M. D.
J. Rasco, M. D.
C. F. Randall, M. D.
D. Roach, M. D.
Roy L. Vineyard, M. D.
S. P. Vineyard, M. D.
S. P. Vineyard, M. D.
C. T. Vineyard, M. D.
W. Van Sweringen, M. D.
J. E. Weather, M. D.
A. E. Wheeler, M. D.
H. B. Whittington, M. D.

CANADIAN, TEXAS
E. H. Morris, M. D.
E. H. Snyder, M. D.

CANYON, TEXAS
W. A. Bigham, M. D.
D. M. Sherrard, M. D.

CLARENDON, TEXAS
W. A. Carroll, M. D.

GROOM, TEXAS
Robert Foster, M. D.

HEREFORD, TEXAS
W. F. Caldwell, M. D.
J. W. Burke, M. D.
C. F. Le Grand, M. D.

MIAMI, TEXAS
J. B. Kelly, M. D.

McLEAN, TEXAS
W. C. Montgomery, M. D.

PAMPA, TEXAS
Archie Cole, M. D.
V. E. Von Bruns, M. D.
Walter Parmenter, M. D.

PANHANDLE, TEXAS
L. E. Petty, M. D.

SHAMROCK, TEXAS
H. A. Zeigler, M. D.

WHITE DEER, TEXAS
Chas. W. Merritt, M. D.

San Angelo Daily Standard
July-12-25

Fig. 1 A facsimile of a group of newspaper advertisements paid for by County Medical Societies. Note that the ad of the Potter County Medical Society does not state that the doctors whose names appear in their roster are licensed practitioners of medicine. This statement is important and should appear in such ads.

or lacking in any number of particulars. The conclusion will be, of course, that there are such, which should lead to a close scrutiny of the qualifications of the individual whose name is not included in the list. It is not an effort to boycott or exclude from consideration, those physicians who are not members of our organization. Indeed, there are many qualified practitioners of medicine who are not members, but who are in every particular qualified to become members, and there are honorable practitioners of the so-called minor schools who are authorized by law to practice and who are believed to be capable, but who, because of their sectarian practices may not become members of our County Societies.

An important matter to be borne in mind is, that it is exceedingly hazardous and of questionable value to participate in a newspaper controversy with the quack. For the present moment, at least, our executive council is rather insistent that this be not done. The public is inclined to look upon the effort to encorce the Medical Practice Act as a contest between so-called schools of medicine, which it distinctly is not, of course. A controversy with an advertising follower of some cult or sect who is being prosecuted for violating the Medical Practice Act, lends dignity to his cause and discredits our cause. There may be circumstances from time to time where this will not be true, and at other times and under other conditions it may be advisable to fight such a battle through the public press, but that is for discussion at another time. It is well to remember, in this connection, the statement of Dr. Oliver Wendell Holmes, that "Controversy equalizes wise men and fools, and fools know it."

We are reproducing here three advertisements of the sort under discussion, which have recently appeared. (Figures 1 and 2.) They differ somewhat, and from them the great variety of possibilities can be readily seen. One of these ads fails in one important particular. It does not carry the statement that the members are authorized by law to practice medicine in this State. There may be room for criticism in any copy of this sort put out, and that phase of the problem will receive careful consideration. No doubt, sooner or later, model forms and model copy will be submitted to County Societies for consideration in this connection, but for the present County Societies are choosing their own copy and proceeding in their own way to carry out this plan, with the advice and consent of the state publicity committee, and the councilors, of course.

As stated last month, individuals about to be tried for violating the Medical Practice Act frequently resort to the expedient of running full page ads in the local newspapers, filled with specious arguments and misleading statements, which practice it was felt had a great deal to do with influencing the prospective jurors in their respective cases. We have before called attention, also, to the power of display advertising of this same sort, recommending to the public this, that or the other group of practitioners of peculiar methods. We have said here that one of the objections to resorting to this method of publicity is the fact that quacks and impostors have resorted to this method of publicity to such an extent that it has become discredited in the eyes of ethical physicians. It is unfortunate, of course, that we must appear to be "fighting the devil with fire," but the necessity of the situation is what we are confronting and not what should be the case. We are reproducing here an ad of this type which doubtless was most effective. (Figure 3.) It was evidently prepared by a trained ad writer. These people know the psychology of advertising and how to heat the iron, and how to strike it while it is hot. We can well take a lesson from them in that regard. The difference will be, of course, and the public will be quick to discern it, that in the one instance, reasonable and understandable facts are presented and in the

A Wise and Righteous Law Is Being Flagrantly Violated In this County Every Day

The Courts are Conscientious and Competent; Public Opinion Must Support Them.

Any person who treats sick people for any trouble or disease by any method, whether by prescribing drugs or using a mechanical means or by giving advice, one or all or any method whatsoever, should have knowledge of the human body and its diseases. If he does not know what is the matter with a sick man, he cannot know what treatment is best nor when any particular form or method should be used.

It is against the law in this State for any person to treat or minister to the sick, charging for services, unless he has passed the State Board appointed by the Governor, obtained a license, and registered it with the District Clerk. Any person so treating people by any method or system, whether a regular doctor, a homeopath, eclectic, osteopath, magnetic healer, chiropractor or whatnot, is violating this law.

Contagious diseases spread because unrecognized, children die that ought to have anti-toxin, cancer goes to incurable stages when early scientific treatment might have cured. In short enforcement of the Medical Practice Act will lessen human suffering and save life.

Human life is sacred. The State owes a duty to citizens which it wants to perform. Public opinion must co-operate with the Courts.

The medical profession of Collin County, believing in law enforcement and knowing the dangers of ignorance in the sick room, are supporting the Courts in performing their sworn duty.

Will you not, as good citizens, give your Courts the same moral support? Signed:

Collin County Medical Society

W. G. HARRIS
E. L. BURTON
A. E. JOHNS
W. S. WYSONG
D. F. HOUSTON
BEN F. LARGENT
J. C. ERWIN JR.
P. D. ROBASON
WILL C. WRIGHT
J. T. MANTOOTH
E. L. HAILEY
J. C. ERWIN SR.
W. R. MATHERS
R. L. DAVIS
R. A. VERDIER
H. F. WOLFORD
B. F. GROUNDS
R. M. WALKER
JAMES H. HICKS
M. S. METZ
W. D. ELLIS
J. D. BURT
A. C. CORRY
S. F. MORROW
H. H. COMPTON
W. N. MANNING
JOE W. LARGENT
W. T. LARGENT

Each of the above is registered with the District Clerk as required by law.

Fig. 2. A facsimile of an effective ad paid for by the Collin County Medical Society, in accordance with the "roster plan" of the State Association.

other, unreasonable theory and misstatement of fact.

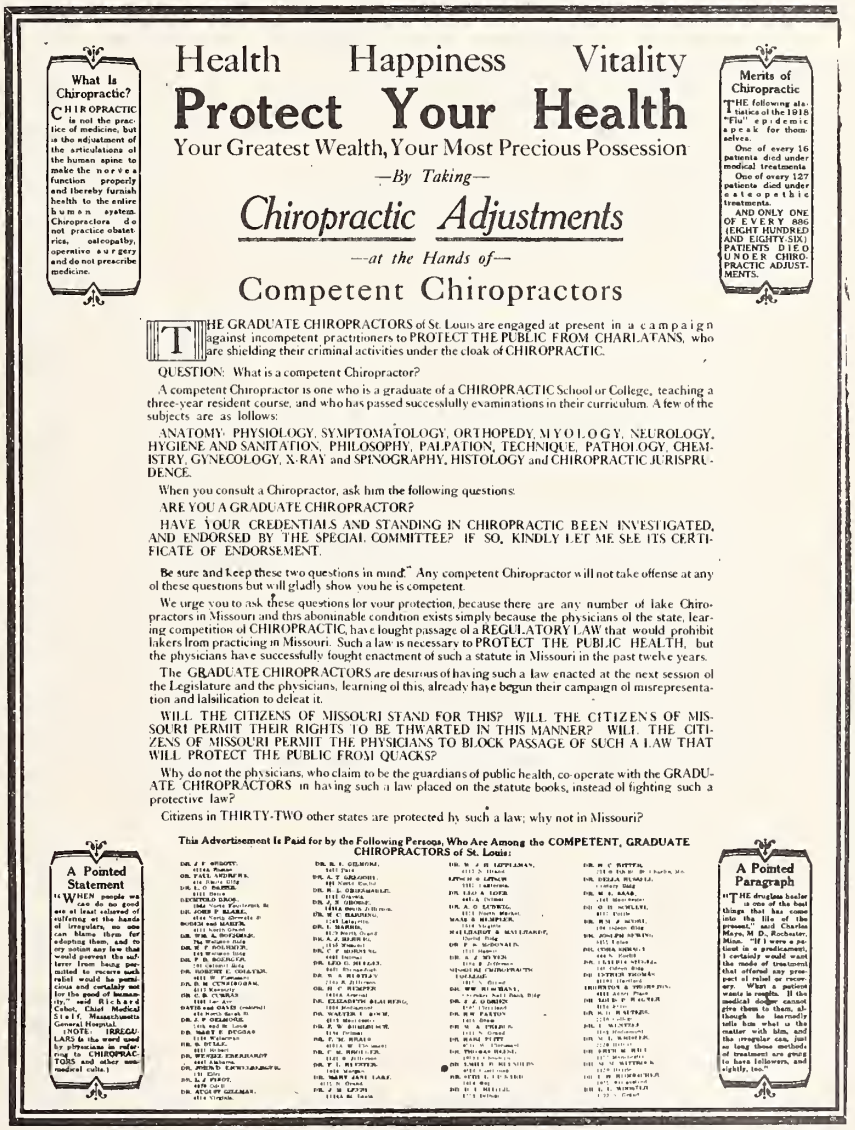
FORM OF COMPLAINT IN THE UNLAWFUL PRACTICE OF MEDICINE

Since the beginning of the campaign for the enforcement of the Medical Practice Act, launched by the State Board of Medical Examiners and joined in by the State Medical Association, requests for a form of complaint which would stand the test of the courts and answer the purpose in hand, have been continuously coming to the attention of those in charge. At a conference of the official family of the State Medical Association, held in Fort Worth, September 1, the problem of enforcing the Medical Practice Act received extended attention. The determination to help the State Board of Medical Examiners in this important matter was re-inforced, and the movement in our ranks received a distinct impetus. The Attorney General of the State, the Honorable Dan Moody, delivered the principal address at a dinner on the evening of that day, in which he stressed the importance of enforcing this law and the various pertinent factors involved. He gave particular attention to the form of complaint to be used and the court procedures to be adopted. Subsequently, the form of complaint used in the celebrated Teem case (Teem vs. State, 183 S. W., page 1144) was adopted, and these forms will be furnished upon application to this office, to our general attorney, Mr. C. T. Freeman, of Sherman, or Mr. Lee P. Pierson, Santa Fe building, Dallas. It seems that the ordinary blanks for filing of complaints will not suffice in many cases. In the interest of our records, and for the immediate information of those concerned, we here reproduce this form:

The State of Texas, county of.....,
In the name and by the authority of the State of Texas:

1. Before me, the undersigned authority, on this day personally appeared....., who, after being by me duly sworn, on oath disposes and says he has reason to believe, and does believe that heretofore, to-wit, on the.....day of.....,
192....., one....., of the county of
....., and State of Texas, in said county of....., and State of Texas, did publicly profess to be a physician and surgeon, and did then and there treat and offer to treat diseases and disorders, mental and physical, and physical deformities and injuries, and to effect cures thereof, and did then and there, while so professing, treat and offer to treat*.....and divers other persons to affiant unknown, for a disease and disorder without first having obtained and received a license and certificate of professional qualifications from any authorized State Board of Medical Examiners of this State, and without having a diploma from some reputable and legal college of medicine with verification license of same from a State Medical Examining Board of the State of Texas and without having the same recorded in the district clerk's office in the county of....., in which county the said....., then and there resided, as required by law, the said..... at the time and date aforesaid coming under any of the exceptions as provided for by law exempting him from the provisions and requirements aforesaid, against the peace and dignity of the State.

2. And affiant further deposes and says that he has reason to believe and does believe that heretofore, to-wit: on said.....day of....., 192....., in the county of....., and State of Texas,


What Is Chiropractic?
CHIROPRACTIC is not the practice of medicine, but is the adjustment of the articulations of the human spine to make the nerves function properly and thereby furnish health to the entire human system. Chiropractors do not practice obstetrics, osteopathy, operative surgery and do not prescribe medicine.

Health Happiness Vitality
Protect Your Health
Your Greatest Wealth, Your Most Precious Possession
—By Taking—
Chiropractic Adjustments
—at the Hands of—
Competent Chiropractors

Merits of Chiropractic
THE following statistics of the 1918 "Flu" epidemic speak for themselves.
One of every 16 patients died under medical treatment.
One of every 127 patients died under osteopathic treatments.
AND ONLY ONE OF EVERY 886 (EIGHT HUNDRED AND EIGHTY-SIX) PATIENTS DIED UNDER CHIROPRACTIC ADJUSTMENTS.

THE GRADUATE CHIROPRACTORS of St. Louis are engaged at present in a campaign against incompetent practitioners to PROTECT THE PUBLIC FROM CHARLATANS, who are shielding their criminal activities under the cloak of CHIROPRACTIC.

QUESTION: What is a competent Chiropractor?

A competent Chiropractor is one who is a graduate of a CHIROPRACTIC School or College, teaching a three-year resident course, and who has passed successfully examinations in their curriculum. A few of the subjects are as follows:

ANATOMY, PHYSIOLOGY, SYMPTOMATOLOGY, ORTHOPEDY, MYOLOGY, NEUROLOGY, HYGIENE AND SANITATION, PHILOSOPHY, PALPATION, TECHNIQUE, PATHOLOGY, CHEMISTRY, GYNECOLOGY, X-RAY and SPINOGRAPHY, HISTOLOGY and CHIROPRACTIC JURISPRUDENCE.

When you consult a Chiropractor, ask him the following questions:

ARE YOU A GRADUATE CHIROPRACTOR?

HAVE YOUR CREDENTIALS AND STANDING IN CHIROPRACTIC BEEN INVESTIGATED, AND ENDORSED BY THE SPECIAL COMMITTEE? IF SO, KINDLY LET ME SEE ITS CERTIFICATE OF ENDORSEMENT.

Be sure and keep these two questions in mind. Any competent Chiropractor will not take offense at any of these questions but will gladly show you he is competent.

We urge you to ask these questions for your protection, because there are any number of fake Chiropractors in Missouri and this abominable condition exists simply because the physicians of the state, fearing competition of CHIROPRACTIC, have fought passage of a REGULATORY LAW that would prohibit fakers from practicing in Missouri. Such a law is necessary to PROTECT THE PUBLIC HEALTH, but the physicians have successfully fought enactment of such a statute in Missouri in the past twelve years.

The GRADUATE CHIROPRACTORS are desirous of having such a law enacted at the next session of the Legislature and the physicians, learning of this, already have begun their campaign of misrepresentation and falsification to defeat it.

WILL THE CITIZENS OF MISSOURI STAND FOR THIS? WILL THE CITIZENS OF MISSOURI PERMIT THEIR RIGHTS TO BE THWARTED IN THIS MANNER? WILL THE CITIZENS OF MISSOURI PERMIT THE PHYSICIANS TO BLOCK PASSAGE OF SUCH A LAW THAT WILL PROTECT THE PUBLIC FROM QUACKS?

Why do not the physicians, who claim to be the guardians of public health, co-operate with the GRADUATE CHIROPRACTORS in having such a law placed on the statute books, instead of fighting such a protective law?

Citizens in THIRTY-TWO other states are protected by such a law; why not in Missouri?

This Advertisement is Paid for by the Following Persons, Who Are Among the COMPETENT, GRADUATE CHIROPRACTORS of St. Louis:

A Pointed Statement
"WHEN people we can do no good are at least relieved of suffering at the hands of irregulars, no one can blame them for adopting them, and to try action any law that would prevent the sufferer from being permitted to receive such relief would be pernicious and certainly not for the good of humanity," said Richard Cabot, Chief Medical Staff, Massachusetts General Hospital.
(NOTE: IRREGULARS is the word used by physicians in referring to CHIROPRACTORS and other non-medical cults.)

A Pointed Paragraph
"THE drugless healer is one of the best things that has come into the life of the present," said Charles Mayo, M. D., Rochester, Minn. "If I were a patient in a predicament, I certainly would want the mode of treatment that offered any prospect of relief or recovery. When a patient wants results, if the medical doctor cannot give them to them, although he honestly tells him what is the matter with him, and the irregular can, just so long those methods of treatment are going to have followers, and slightly, too."

Fig. 3. A chiropractic ad from a big daily newspaper in Missouri. Note the difference in the character of the statements made in this ad and in those shown in Figures 1 and 2.

one..... of said county and State, did then and there treat and offer to treat diseases and disorders, mental and physical, and physical deformities and injuries and to effect cures thereof, and did then and there charge money therefor, and did then and there on said date treat and offer to treat.....for a disease and disorder, and did then and there receive from the said..... money therefor without first having obtained and received a license and certificate of professional qualifications from any authorized State Board of Medical Examiners of this State, and without having a diploma from some reputable and legal college of medicine with verification license of same from a State Medical Examining Board of the State of Texas and without having the same recorded in the district clerk's office in the county of....., in which county the said..... then and there resided, as required by law; the said....., at the time and date aforesaid not coming under any of the exceptions as provided for by law exempting him from the provisions and requirements aforesaid; against the peace and dignity of the State.

.....

Sworn to and subscribed before me by....., this the.....day of....., A. D., 192.....

.....

.....

*Here give name of patient.

VICARIOUS PRACTICE OF MEDICINE

In years gone by, the embryo physician was allowed to practice medicine under the supervision of a preceptor, or some established physician who would serve in such capacity, in advance of his graduation and license to practice. In those days, when physicians were few and far between, and the need for their services pressing, and the difference between the knowledge of a medical student who had read medicine under a good preceptor and the physician who was authorized to practice, was largely a matter of experience and personal observation, this was a good thing. As the art of practice developed and the various sciences were brought into play, this difference became wider, and it eventually appeared to be unsafe to continue the system. So the laws of this state enacted to control the practice of medicine, were so framed as to forbid this procedure. The right of a physician to employ an individual as an assistant, under his direct supervision, in the performance of any act the said physician is authorized to perform, has not been questioned, but he cannot, under the law, refer any part of his work as a practitioner of medicine to any person unauthorized to practice medicine, to be accomplished outside of his personal and direct supervision.

Of late years, the followers of peculiar systems of practice, who either do not desire or cannot for any reason qualify under the state law for the practice of medicine, have in many instances resorted to a subterfuge of this sort for evading the law. It is evidently believed by some that a physician may refer patients to them for their peculiar treatment, in the effort to prevent or cure disease, bodily deformity, etc., and that they may treat such patients so referred with impunity. This is true only to the extent that their practices are not in violation of the Medical Practice Act. For instance, a masseur may practice his art and apply the well established scientific treatment of massage, upon the request of a licensed practitioner of medicine that he do so, exactly as a licensed pharmacist would fill the prescriptions of a licensed physician. For that reason the masseur is exempt from the Medical Practice Act, and for the same reason it is provided in the exemption clause that the said masseur must be acting within his sphere as such. In other words, even the masseur, who is exempt under the law, may not apply his art as a practitioner of medicine, whether or not told to do so by a licensed physician. It is clear that no licensed physician can have the power to authorize others to practice medicine. In support of this contention, we submit the following paragraphs from an official opinion rendered to Dr. T. J. Crowe, secretary of the State Board of Medical Examiners, by the attorney general's office, written by assistant attorney general, Mr. C. A. Wheeler:

"Replying to the question, you are advised that in our opinion it would be a violation of the law for any person who shall publicly profess to be a physician, or surgeon, to treat any disorder or disease, mental or physical, or any physical deformity or injury by any system or method or to effect cures therefor, whether such person claiming to be a physician or surgeon received compensation either directly or indirectly. See article 755, penal code, subdivision 1. Therefore, if a physician employs as assistants in a hospital persons who profess to be physicians or surgeons for the purpose of giving treatments for any disease or disorder, mental or physical, etc., who are unregistered practitioners, as required by law, subdivision 1, article 755, penal code, would be violated.

"Subdivision 2, article 755, penal code, applies to all persons who shall treat or offer to treat any disease or disorder, mental or physical, or any physical deformity or injury by any system or method, or to effect cures thereof and charge therefor, directly or indirectly, money or other compensation, even though they may not publicly profess to be a physician or surgeon, and if the assistants referred to in your question are not publicly professing to be physicians or surgeons, but are directly or indirectly charging money or other compensation for the treatment they give, such conduct is prohibited under subdivision 2 of article 755, penal code."

NURSING EDUCATION

The problem of Nursing Education and nursing service is of vital concern to our hospitals, colleges, physicians and the public. Much thought has been and is being given to attain an acceptable policy of education and to meet the demands of public and profession in an efficient and reasonable manner. To aid and to institute such a solution, our Joint Committee on Public Health Education is interesting itself in the problem as a feature of public health conservation. We append the preliminary report for our members' consideration.

PRELIMINARY REPORT ON NURSING SERVICE TO THE JOINT COMMITTEE ON PUBLIC HEALTH EDUCATION

As a preliminary to any study of nursing service it appears to us important to get as nearly as possible an opinion of the number of nurses of various kinds available in the state of Michigan. This is by no means a simple business and it is probably true that no figure can be obtained which is more than reasonably accurate. The only authoritative source of information on this point is the State Board of Registration of Nurses and Trained At-

tendants. Through the courtesy of the secretary of that Board, Mrs. Moore, we have been able to get the figures for recent years. These consist of the number of nurses registered in any one year which means either nurses recently graduated or nurses who have moved into the state and also the number of nurses who have renewed their registration, as they are supposed to do every year. Since the figures for 1925 are necessarily incomplete, we have taken the figures for 1924 which show 1,056 nurses registered and 4,860 renewals giving a total of 5,916. For the same year the number of persons who renewed their registration as trained attendants was 244. The total number registered as public health nurses was 226. These figures tend to show that there is one nurse for every 672 persons living in the state of Michigan, using the most recent figures on population for the estimate. This figure should be compared with the number of nurses in the whole country as compared to population which shows one nurse to every 704 persons. Though I realize that these figures are not accurate they are probably sufficient for a survey of the situation.

It appeared to us next important to form some estimate as to the distribution of nursing service in the state as between private practice, institutional and public health work and the number of nurses graduating who ultimately leave the profession, whether by reason of marriage or to take up some other work. We found that there were no available figures upon this point from any source to which we had access. Your Committee, therefore, sent a letter to the superintendent of every training school in the state having twenty-five or more nurses in training and received answers from a representative group of sixteen which during the last five years had graduated 1,390 nurses. They were asked to give the number of nurses graduated during this period and the number or the estimated number who were doing institutional or public health nursing and the number who had left the profession. Of the 1,390, 775 were believed to be in private practice; 332 to be in institutional or public health nursing and about 24 per cent to have left the nursing field. In these replies a certain proportion were dependent upon estimates and it therefore seemed interesting to compare the estimates with a group of hospitals in the state in whom the actual figures were known. We therefore took a list of eight training schools which have graduated 673 nurses during the last five years and in regard to whom accurate figures are available. Of these, 283, or 42 per cent, are engaged in private practice; 213, or 31 per cent, are in institutional or public health nursing; and the balance, or 27 per cent, are not engaged in the profession of nursing. From this it would appear that the figures obtained from something like half the group in which the facts are known would show a somewhat larger proportion of nurses engaged in institutional and public health work as compared with those in private practice. If one were inclined to pursue this question still further, it would be interesting to take the statistics of one of the larger training schools in which an accurate record has been kept of the distribution of their nursing graduates during the last twenty years. This shows the following distribution:

Private nursing	Institutional	Public Health	Married	Died	Unknown	Total
116	142	38	239	21	110	666
or	or	or	or	or	or	
21.3%	17.2%	6.1%	35.8%	3.5%	15.1%	100%

From this it appears that a larger number are engaged in institutional and public health nursing than are engaged in private practice and that the number who have left the profession by reason of marriage or other cause is very considerable. While it is obviously dangerous to draw conclusions from such relatively small statistics, it seems fairly clear that of the graduates in nursing, a very considerable proportion prefer institutional or public health work to private practice and perhaps not more than half of the graduates will be found available for the actual care of patients outside of institutions. From many sources during the last ten years has come evidence of the so-called shortage of nurses. This has not been due to any diminution for during this period the increase in the number of nurses actually graduated from training schools has been over 80 per cent. It does mean, however, one of two things, either that the public is becoming much more anxious to employ nursing service or that the number of graduates going into other fields has prevented the very great increase of nurses from being of its greatest value in nursing service. In an article by Dr. Goldwater in 1921 he comes to the conclusion that 300,000 nurses would be required to give adequate service in the hospitals already existing. But he also points out that any such number would be entirely beyond the requirement of the community for nursing service. The question is, however, a pretty academic one since there is no possibility of such a large number of persons being engaged in training at any time in the near future and, in fact, the number at present in training is perhaps somewhere near the maximum number which can be obtained at the present time. This figure is probably in the neighborhood of 57,000 of whom perhaps a third graduate each year.

Now it is by no means easy to say how many nurses there should be in a given area in order to give the desired amount of nursing service, but perhaps some line may be gotten upon this question by comparing the number of nurses available with the number of physicians. The most recent estimates appear to show that there is one nurse to every 672 persons in Michigan as compared with one physician to every 822. It seems quite clear that the number of nurses ought to exceed the number of physicians by a larger proportion and that there should probably be at least twice as many persons prepared to care for the sick in the nursing field as in the field of the practice of Medicine. The problem, therefore, is that of increasing the number of persons qualified to care for illness of varying degrees of severity. As has frequently been pointed out, the trained nurse is a highly skilled person whose services are indispensable in the care of acute or serious illness, but there are also a large number of persons less seriously ill who could get adequate service from persons less highly trained and less experienced. This means that an increase in the number of persons commonly referred to as trained attendants would probably be the most effective method of assisting in the present difficulty . There appears to be evidence that the number of graduate trained nurses who are going into the field of institutional and public health work is steadily increasing and with the continued growth of work in these fields such a tendency would probably continue to in-

crease. It, therefore, follows that any method which can be adopted to increase the number of less fully trained people who would be available for less serious illness is highly desirable. Your Committee does not feel as if its present study of the problem had entitled it to an opinion as to the most available methods for this purpose. There is a considerable body of well considered opinion to the effect that the education of trained nurses and trained attendants cannot profitably be carried on under the same roof. Constant comparisons to the disadvantage of the trained attendant are unavoidable and the atmosphere is apparently not likely to be congenial. It is suggested, therefore, that the training of attendants must be carried on elsewhere than in hospitals having training schools giving a three year course, though it is not impossible that such institutions might have other facilities at their disposal for the turning out of trained attendants. We believe that a further study of the possible methods of enlarging the group of trained attendants would be advantageous.

We wish to emphasize the fact that this report is only preliminary and that no claim is made for great accuracy of the figures. We desire also to thank the directors of the training schools and the State Board of Registration in Medicine for their cordial co-operation.

Hugh Cabot,
W. T. Dodge,
F. C. Warnshuis.

PERIODIC PHYSICAL EXAMINATIONS

In this issue under "Among Our Letters" there will be found a communication from the A. M. A. calling attention to a standard examination blank that has been devised, as well as a guiding manual for the making of periodic physical examinations. Under the minimum program plan that is being advanced for County Medical Societies there is one proviso whereby the County Society will bring about the periodic physical examination of its members. This is a feature that is being stressed, together with the other features of that program. We preach this to the public, but we would be very inconsistent if we failed in observing our preachings. It would be embarrassing, too, if a patient asked you, after you had urged him to have a physical examination, "Doctor, when were you examined?" Therefore we are urging that each member set a good example by taking a physical inventory of himself. Yes, we had ours this past month.

We are therefore calling attention to this and are very pleased to note that the Houghton County Medical Society has officially designated the week of November 1-7th as the time in which each member of that Medical Society will secure a physical examination, not only of himself, but also for every member of his family. That is a splendid example and one that should be adopted by every County Society. Set aside one week or two, and make it a point that every member has a physical examination and don't be afraid to tell the public through your local papers that you are practicing what you preach. May we not have reports of the action taken by your County Society.

And, while we have mentioned the minimum program in this comment, we also draw attention to the fact that the Alpena County Medical Society organized a team which put on the program for the regular meeting of the Bay County Medical Society. That indicates cooperative spirit and effort and reveals what organizational effort will accomplish if but exhibited. County meetings can be made very interesting and instructive if sister societies will call upon each other for teamwork.

We are indeed encouraged by the awakening that is being revealed throughout the entire state in Society work. We are convinced that we are entering upon a new phase of medical activities and accomplishments. A little initiative and a moderate enthusiasm will produce desired and profitable results. We urge that county officers exhibit these two motivating essentials.

LODGE PRACTICE

There are certain fraternal organizations and a few of a benefit insurance type that seek to provide for their members free medical services at a nominal premium rate. These organizations then enter into contract or agreement with one or more doctors to render professional services to these members at a flat yearly salary or a minimum nominal fee per call or office visit. At one time this practice was quite prevalent and it is still manifested in some localities. It is, however, gradually becoming extinct for doctors preceive wherein they have been the goats.

We are glad to see that the doctors of Houghton County have taken definite steps to bring about a cessation of this type of work in their county. We congratulate them upon the step taken when they adopted and signed the following resolution:

We, the undersigned physicians and surgeons, being convinced that the higher ideals of the medical profession would be advanced and exemplified and that harmonious feelings and relations would prevail among members of the profession, have decided and do hereby agree that we will not hereafter serve any appointment or enter into any contract as physicians or surgeons with any of the various benevolent and fraternal organizations, and pursuant to this decision and agreement we herewith affix our signatures, thereby indicating that we consider ourselves bound individually to observe the letter and spirit of this agreement.

Signed by the Houghton County Medical Society:

Philip D. Bourland,
H. M. Joy,
J. W. Moore,
I. D. Stern,
G. C. Stewart,
Thomas P. Wickliffe,
W. H. Ellis,
Alfred LaBine,

O. H. Kohlhaas,
C. H. Rupprecht,
C. E. Rowe,
J. W. Kirton,
J. C. Abrams,
J. B. Quick,
M. C. Roberts,
A. D. Aldrich,
W. A. Manthei,
K. C. Becker,
E. A. Bicknell,
A. C. Roche,
R. J. Maas,
.W H. Dodge,
W. R. Bridgman,
R. V. Buckland.

Editorial Comments

Every now and then there bobs up a report as to how some man or men prostitute the profession and their therapeutic armamentarium by catering for purely a mercinary reason to some fad or folly. Right now it is the X-ray man, or at least some of them, who are working a gag and preying upon women—Society Matrons and Belles—by giving X-ray treatments to the exillary region for the purpose of destroying the function of the sweat glands and producing "dry armpits". It's five dollars a treatment and it takes as many treatments at that price as the operator can put across. Women are falling for it and the professional prostitute is pocketing the coin. We pity the man who poses as a Roentgenologist who cannot find sufficient real diagnostic work to do and must stoop to this base commercialism. Well might charges of unprofessional conduct be preferred against him and we sincerely hope that physicians will express their disapproval of such type of practice as to withhold all their X-ray work from that breed of men. We will furnish names if desired.

Read what Texas is doing to foster public endorsement and good will. We are publishing the editorial in this issue. We recommend that this work be considered by every County Society and that they add that feature to their minimum program. We anticipate that if every county will utilize this method in their county that they will create the same sentiment that Texas has created. May we not have your reports as to how this appealed to your members when you bring it up for discussion at your next county meeting?

There is an Indiana concern that has been sending to doctors by mail three handkerchiefs with the request that you remit one dollar in payment. Other firms send pencils, pens, greeting cards, etc., asking the recipient to remit a named price. Tickets for concerts and benefits are sometimes distributed in the same manner. We are not inclined to impart legal advice, but we believe that if in place of returning the articles or remitting the requested money, they were ignored altogether, this annoying sales method would soon cease. There is far too great an abuse of our mail system. Drug firms of proprietary type flood the mail with glaring post cards and as one doctor stated "two-thirds of a doctor's mail is usually composed of such and similar advertising trash." We presume that as long as the postage is paid such mail will be delivered. The only remedy that can be suggested is to raise the mailing rate on second class matter and prohibit its being mailed as first class mail. In this day of investigation tendency, it might be well that a commission be appointed to investigate and submit a remedy for the abuse of our postal service. Oh well, as long as these firms catch a bite here and there they will pursue their method so that about the only way to get off the "sucker list" is to not reply and dump it all in the scrap pile—it helps to start a fire these cold mornings.

In this issue we are publishing the annual address of the President of the Wayne County Medical Society as well as the annual reports of Wayne's standing committees. We do this for two purposes—first to record and impart that which an active, large County Medical Society can and does accomplish by way of organized effort for the good of its members and secondly, to point out wherein and how other County Societies, though they be not numerically large, may in the same manner and by the exhibition of similar effort achieve the desired ends that is being sought for the benefit of the people and its members. We congratulate Wayne upon its splendid work and convey our every wish that the ensuing year will witness the same activity with added success and increased results. These reports should be an inspiration and impetus for every county organization.

Ford Hospital has created a mild sensation in medical circles by throwing away its price list for human repairs and parts. The Ford staff has been officially informed that the flat-rate system of charging for the treatment of human ailments has been abandoned and that "the patient's charges will be on an income basis," which is the customary method of the medical profession as a whole in making charges.

The Ford method still differs, however, from the method of the profession as a whole in one interesting particular. Mr. Ford has placed a maximum limit of $1,000 on surgical fees, and a maximum limit of $70 a week on medical charges. One of Detroit's wealthiest women, for instance, was recently charged $1,000 for an operation for appendicitis at Ford Hospital, while a young woman of very modest means was charged $35 for the same operation. The medical profession as a whole places no limit on operating fees, though a committee of the staff of Harper Hospital is considering the advisability of doing so. Harper Hospital Bulletin apparently does not think much of the suggestion. It says:

"Our great charities, or free clinics, including our city hospital, are manned by the medical profession without compensation. * * *

"People of wealth demand more than ordinary service, and plenty of it—the most exacting kind. Their prominence adds responsibility to their care. They occupy the most expensive quarters, and nothing in nursing service is overlooked. Can there be any logic in asking the doctor on whom so much responsibility rests, to render a usual average bill?"

Why Mr. Ford has abolished the fee system on which he has operated for 10 years is not publicly stated; but the fact is that besides the millions he has put into his hospital he has had to make up a deficit of $2,400,000 in that period. It is a reasonable assumption that by charging his patients according to their income he expects to get more business from people who could not afford to pay his fixed fees, and to reduce his annual deficit. Mr. Ford's experience seems like a fair vindication of the ancient fee system of the medical profession.

—Detroit Saturday Night.

It is announced that on September 1, 1925, a change in policy relative to charges to patients of the Ford Hospital was placed in effect. "On and after that day there will be a maximum operating fee of one thousand dollars, and a maximum medical charge of seventy dollars per week." It is understood that complete details of the new plan have not been perfected to the point where they can be published. A determination of the patient's bill will be made on an income basis. Out-patient charges will remain the same as in the past.

We feel that this change of policy on the part of the Ford Hospital is in line with the progressive policy pursued in the Ford industries. It was exactly this flat fee, pay-as-you-enter idea, treating the rich and poor alike, that was objected to some two years ago. It was felt that Mr. Ford's organization was entering into competition with legitimate professional men on an unjust and undemocratic basis, in so much as this organization was backed by unlimited means which were available for any and all deficits which might arise. Five years has disclosed this deficit to be two million four hundred thousand dollars, according to reports, and it is now felt that the Ford Hospital has justified the stand taken by the Detroit profession against this unreasonable competition.

If it is Mr. Ford's desire, and we believe it is, to serve the people of these United States and Detroit, to the very best advantage, his hospital facilities will soon be made available to members of the medical profession engaged in private practice as opposed to the present plan of employing full-time doctors to serve as cogs in a great wheel. People naturally and universally prefer to choose their own doctors—and after all, why shouldn't they? Medical leaders—men who through their ability and long study have built for themselves a reputation, are rarely found with their personalities submerged in any institution.

Wayne County Bulletin.

MINUTES OF THE OCTOBER MEETING OF THE EXECUTIVE COMMITTEE OF THE COUNCIL

The Executive Committee of the Council met in regular monthly session in Grand Rapids on October 15, 1925.

Present—J. B. Jackson, George LeFevre, R. C. Stone, B. R. Corbus, H. G. Smith and F. C. Warnshuis.

1. The threatened libel suit against two doctors of the Calhoun Medical Society was thoroughly discussed and in reviewing the entire incident the Executive Committee felt that the legal department of our State Society should defend these members, and thus in conformity with the referendum which was submitted to each member of the Council and which approved such defense, the legal department of the Society was instructed to put in appearance at this suit.

2. Chairman Jackson announced tentative date for the annual meeting of the Council has been selected for January 14, 1926.

3. Executive Secretary, Mr. Smith, reported on his activities of the past month and the work that he is doing in regard to the securing of the adoption of the Minimum Program by the County Societies, and also on the schedule that had been adopted for the continuance of the clinical conferences in each councillor district. Plans presented were approved and the Executive Committee desires to impart to the Council that there is a wonderful awakening of interest and expression of activity as has not been manifested in our State Society for a number of years. It is felt that the County Societies are manifesting an interest which will result in the best year for organizational activity that the Society has experienced.

4. Chairman Jackson reported for the Special Committee to confer with the Regents of the University relative to the establishment of a Post-Graduate School. The subject is being given proper attention.

5. Commissioner of Health, R. W. Olin, requested the approval of a slip to be sent to doctors to be enclosed in their mail to their patients, in which diphtheria immunization was urged. The Executive Committee gave approval of this plan and instructed the Secretary to so advise the Commissioner of Health.

6. Secretary-Editor reported on the finances and the general activity of the state office, which report was approved.

7. Chairman Jackson reported that there was a discussion at the last meeting of the Joint Committee on Public Education relative to newspaper publicity, and that the Joint Committee is favorable towards undertaking a campaign of newspaper publicity for the education of the people of Michigan regarding health and disease prevention method. It was felt that the State Society could well participate in this undertaking and assume part of the expense that would be involved because of the good that would result to the profession from such a campaign. It was recommended that the matter be referred to each member of the Council for consideration, and that the subject be made one of general discussion at the annual meeting in January.

8. The Executive Committee instructed the Secretary to arrange the following program for the annual meeting of the Council in January—

The Council to meet with the Joint Committee on Public Health Education in Ann Arbor at noon of January 14th. The Council thus to have its first session during the afternoon. The Secretary was then instructed to invite the faculty of the Medical Department of the University, the faculty of the Detroit College of Medicine, Council of the Wayne County Medical Society, the members of the State Board of Registration in Medicine, and the Commissioner of Health of the State, to join with the Council at a dinner at 6 o'clock at the Michigan Union, during and after which there would be a general discussion of the problems represented by these several groups and their relationship to the State Society and to the Profession of Michigan. The Council is then to hold its final session on the morning of January 15th for the completion of its business.

9. The Secretary reported upon the increased activity of his office by reason of work that was required in preparing for clinical conferences and for the institution and carrying out of the Maximum Program for County Societies. He pointed out the success of this program depended upon a constant check-up on the activity of each County Society and that this would entail a marked increase of correspondence. On motion of Dr. LeFevre supported by Dr. Stone the Secretary was authorized to employ additional office help.

The meeting adjourned at 9:30 p. m. until the regular monthly meeting of November, which will be called by the Chairman.

The Kalamazoo Academy inserted a physical examination blank with the regular notice of their meetings that is sent to its members. This is a splendid plan and will remind members that a

personal physical examination is a part of the member's obligation in carrying out the Minimum Program plan. We are passing the suggestion along to our County Societies. The Kalamazoo Academy is also considering installing a kitchen equipment in its Club Rooms so as to serve luncheons in connection with its regular meetings.

Among Our Letters

NOTE.—*This department is the open forum of our members. Your communications and discussions are welcomed. Anonymous communications cannot be accepted, though at times names may be omitted by the Editor. Personalities will not be printed and responsibility for opinions is not assumed. We invite your interest in this department. Address: The Editor, Journal, Michigan State Medical Society, Powers Theatre Bldg., Grand Rapids, Mich.*

Editor of The Journal:

As you know November 5th is the date for the Northwestern Clinical Meeting in Manistee. While we are not so arrogant as to state that we will equal the Post Graduate Conference held in Cadillac this last week, still we feel that the program will be worth while attending. If you find space to mention this meeting in The Journal, we trust the physicians in this section of Michigan will accept this as an invitation to attend.

Allow me to take this opportunity to tell you how the men from this section of M-11 appreciated the program at Cadillac.

The only unfavorable criticism was from a detail man who wasted a day in Ludington trying to call on the doctors and found the great majority out.

We especially like the sound of common sense, practical nature of the subjects presented. At times it is as important to assure us that our old methods are still correct as it is to get us dizzy with a lot of new theories that may work out some time in the future.

The Post Graduate Conferences are a great help. No member who has attended one or more, needs ask what is being done with the paltry $10 per year state dues.

Sincerely yours,
J. F. Goeke, Secretary-Treassrer,
Manistee County Med. Soc.

Editor of The Journal:

Pursuant to the action of the House of Delegates at its meeting in Atlantic City, a conference has been arranged on the subject of periodic examinations of apparently healthy persons, to be held in Chicago on the evening of Friday, November 20 at 7:30 o'clock and on Saturday morning, November 21, at the headquarters of the American Medical Association, 535 North Dearborn street, Chicago.

Participants in this conference will be (1) the Secretaries of State Medical Societies, who are holding their annual conference at headquarters at this time; (2) the officers and trustees of the American Medical Association, and (3) a group of persons who have been especially interested in this movement and have made important contributions thereto by published articles or in other ways. The list of those to whom this notice is being sent is as follows:

Isaac Abt, M. D., Charles Elliott, M. D., J. L. Miller, D.M., Chicago; Alfred Shipley, M.D., N. Y.; H. Douglas Singer, M. D., Chicago; J. H. Cannon, M. D., Charleston, S. C.; Henry W. Cook, M. D., Minneapolis; Y. C. Dunham, M. D., Washington; John Jenninngs, M. D., Brooklyn; Edward Martin, M. D., Pa.; M. B. Hussey, M. D., Sidney, O.; Isaac D. Rawlings, M.D., Ill.; H. E. Swanberg, M.D., Quincy, Ill., Hoyt Dearholt, M.D., Milwaukee; Chas. Emerson, M. D., Indianapolis; Roy R. Ferguson, M. D., Chicago; G. E. deSchweinitz, M. D., Philadelphia; Frank Billings, M. D., Chicago; Joseph Capps, M. D., Chicago; Haven Emerson, M. D., New York; Anna M. Richardson, M. D., N. Y.; Alec N. Thomson, M. D., New York; E. J. G. Beardsley, M. D., Philadelphia; Elliott B. Edie, M. D., Uniontown, Pa.; Z. Causey, M. D., Douglas, Ariz.; LeRoy P. Kuhn, M. D., Chicago; Roger I. Lee, M. D., Cambridge, Mass.; Thomas Ordway, M. D., New York; Stanley Osborne, M .D., Hartford, Conn.; L. E. Siegelstein, M. D., Cleveland; Orin Sage Wightman, M. D., New York; Walter Biering, M. D., Des Moines, Ia.; E. E. Irons, M. D., Chicago; William O. Pusey, M. D., Chicago; Ray Lyman Wilbur, M. D., California, and the Secretaries of the State Medical Societies, and the officers and trustees of the Association.

I enclose copy of the tentative program. I hope very much that you can attend this meeting and participate in this discussion. It is hoped that out of it will come suggestions for future conferences and other means of arousing a more widespread interest in periodic examinations of the apparently healthy.

Yours very sincerely,
John M. Dodson.

Editor of The Journal:

I am greatly dissappointed that neither my son or myself, are able to attend this meeting of the State Society, for I know it will be a good one. Circumstances over which we have no control are keeping us at home.

I have just received a letter from our Health Commissioner, Dr. Olin, informing us of the abolition of all fees for registration of births and the reporting of T. B. cases. This is just another instance of his looking after the interests of physicians. I have always understood that the only reason of any fee at all was that physicians could not be compelled to work for nothing, so to make it legal, it was necessary to give them a small fee, then the law could be enforced. If this is the case, I feel that the matter should come up before the House of Delegates. With the demands made upon us by and through our noble Health Commissioner, it is almost necessary to keep a stenographer for that purpose alone. If this letter reaches you in time, you may use it as you see fit and I hope Olin the Great will be on hand to hear it. This is one of the many reasons why I did not want to miss this meeting.

Sincere regards to all and best wishes for a most successful meeting, I am

Sincerely yours,
Charles T. Southworth.

Editor of The Journal:

I was very sorry not to see more of you during my recent visit to your city and Muskegon. I suppose Dr. Colver told you that we were both knocked out by something which we ate at the banquet and after my attempt to deliver my paper

at Muskegon that intensely hot day, I was feeling pretty well the worse for wear hence at the suggestion of Dr. Colver, I jumped in a car and made a break for Battle Creek.

I enjoyed my visit very much and was especially pleased with the attention I received and the interest of the men attending. I hope your new venture in the State Program is going to prove a success. I have attended a good many large meetings of medical men, but yours is a State Society which impressed me as being above the average. I am especially pleased with your State Journal. Not only its high class appearance, but the contents as well. I have been dissatisfied with the makeup of our Journal for several years, and when I was president I tried to get a change made. If you will be good enough to forward a copy of the August and September issue to Dr. J. R. Cowan, President Kentucky State Medical Society, Danville, Ky., I would appreciate it very much. I have asked him to bring this matter before the House of Delegates and exhibit the style and general appearance of your Journal as compared with ours, seeing if he cannot get them to change it, to one something like yours.

Again assuring you of my hearty appreciation of the courtesies and the cordial invitation to address your State Society, and regretting that I could remain no longer with you, I am,

Sincerely,

J. A. Stucky,
Lexington, Ky.

Editor of The Journal:

Attention: Dr. F. C. Warnshuis, Secretary Editor.

Reference is made to that portion of your letter dated August 25, 1925, relative to the Bureau's ruling that physicians are not entitled to deduct from their gross income the expenses incurred in connection with postgraduate study or in attendance of national and state medical conventions.

You are advised that the ruling that expenses incurred in connection with post-graduate study and attendance of professional meetings and conventions are personal expenses does not apply specifically to physicians, but to all persons who incur such expenses regardless of their profession or business. The ruling is based upon the fact that such expenses do not come within the classes which are deductible under the provisions of Section 214 (a) (1) of the statute, which read in part as follows:

"(a) That in computing net income there shall be allowed as deductions:

"(1) All the ordinary and necessary expenses paid or incurred during the taxable year in carrying on any trade or business, including a reasonable allowance for salaries or other compensation for personal services actually rendered; traveling expenses (including the entire amount expended for meals and lodging) while away from home in the pursuit of a trade or business; * * *"

In order to be entitled to the deduction of traveling expenses the taxpayer must be "away from home in pursuit of a trade or business." The expenses incurred by a physician in attending meetings of medical societies are but remotely connected with the carrying on of his profession. It was held by the Attorney General in his opinion rendered May 19, 1919, promulgated as Treasury Decision 2847, that only ordinary and necessary expenses are allowed which include expenses incurred directly in the maintenance and operation of a business and not those which may be beneficial or even necessary in the broader sense.

Respectfully,

J. G. Bright,
Deputy Commissioner.

Editor of The Journal:

A new manual of suggestions for the conduct of periodic examinations of the apparently healthy has just come from the press of the American Medical Association. I am sending you a copy under separate cover.

We believe that if a copy of this pamphlet could be placed in the hands of every member of the American Medical Association it would do more than perhaps anything else to arouse an interest in this movement to induce physicians to undertake this activity and prepare themselves to make thorough and careful examinations. The most certain way to secure such a wide distribution of the pamphlet is through the State Medical Associations. The booklet sells for 20 cents the copy, but we can furnish it in orders of 500 or more at not to exceed 8 cents per copy, postage extra.

The officers of two of the State Medical Societies are planning to purchase a sufficient number of copies to supply every one of their members. On large orders we can place the imprint "Compliments of the ..... Medical Society."

I wish you would bring this matter to the attention of the officers of your State Society and suggest that steps be taken to distribute the pamphlet in this way. The price in lots less than 500 is as follows:

25 copies	$2.50
50 copies	4.50
100 copies	8.50

I should be very glad to have your opinion of this plan and to learn whether or not you will bring the matter to the attention of your association.

Yours very sincerely,

John M. Dodson, M. D.

Editor of The Journal:

I am interested in compiling a collection of short stories written by doctors. As many of these stories are published under assumed names, or the medical degree of the author is omitted, it is difficult to locate them. I am, therefore, writing to ask that if you or your readers know of any short stories published by medical men you will kindly communicate the fact to me.

Assuring you that any information relative to this matter will be greatly appreciated, I am,

Yours truly,

Harold Hays,
22 West 74th St.,
New York City.

State News Notes

The formal dedication of the new University Hospital has been arranged for Thursday evening, November 19th.

While interest in the Hospital and its program is general, the hospital authorities feel that the Medical Profession has a very special interest. Accordingly there has been arranged, in addition

to the usual formal exercises, to present a series of clinics and addresses from distinguished members of the Medical Profession, beginning Thursday afternoon and ending Saturday noon. On Thursday afternoon at 4:15, Dr. W. J. Mayo will deliver the annual Mayo Lecture under the title "Splenic Syndromes".

In the evening the formal exercises will be held at the Hill Auditorium at which President Little will preside. It is expected that Governor Grosbeck, Senators Couzens and Ferris, State Representative Michner, Regent Sawyer, and Dr. C. G. Darling and Dr. F. C. Warnshuis, President and Secretary of the State Medical Society, will be present and addresses will be given by Doctors V. C. Vaughan, W. J. Mayo and Wm. S. Thayer.

On Friday morning Doctors Thayer, Mayo, McDonald of Toronto, Canada, and Williams of Rochester, N. Y., will conduct clinics at the hospital. Friday afternoon and Saturday morning will be occupied in Clinics conducted by distinguished members of the profession from the State of Michigan. It is planned to have several of these clinics going on at the same time in different amphitheaters and lecture rooms. Demonstrations also will be conducted in the various laboratories during the Friday and Saturday morning meetings.

On Friday evening there will be a general meeting in the Hill Auditorium with several speakers, Dr. R. M. Olin, Commissioner of Health; Dr. George LeFevre, President of the State Board of Registration; Miss Mary A. Welsh, President of the State Nurses' Association; Doctors H. A. Haynes, of Ann Arbor; J. B. Herrick, of Chicago and C. P. Emerson, of Indianapolis, who will speak on the general relations of the hospital to the community.

Saturday afternoon the last and one of the best games of the season will be played at Ferry Field. While a limited number of tickets will probably be available up to Friday afternoon, it is hoped that as many as possible will provide themselves before coming.

The following is a partial list of the gentlemen who are invited to take part in the program:

Armstrong, R. B.	Charlevoix
Balch, R. E.	Kalamazoo
Ballin, Max	Detroit
Bourland, P. D.	Calumet
Boys, C. E.	Kalamazoo
Campbell, A. M.	Grand Rapids
Campbell, Don M.	Detroit
Case, J. T.	Battle Creek
Christian, E. A.	Pontiac
Cooley, T. B.	Detroit
Corbus, B. R.	Grand Rapids
Crane, A. W.	Kalamazoo
Douglas, B. H.	Northville
Fischer, A. F.	Hancock
Freund, H. A.	Detroit
Green, B. F.	Hillsdale
Harris, R. H.	Battle Creek
Hornbogen, A. W.	Marquette
Jackson, J. B.	Kalamazoo
Jennings, C. G.	Detroit
Johnston, C. H.	Grand Rapids
Kamperman, G. A.	Detroit
Kempton, R. M.	Saginaw
Lockwood, B. C.	Detroit
Manwaring, J. G. R.	Flint
Marshall, W. H.	Flint
McKean, G. E.	Detroit
McLean, Angus	Detroit
McNamara, Wm. E.	Lansing
Munro, C. D.	Jackson
Powers, J. H.	Saginaw
Pritchard, J. S.	Battle Creek
Randall, H. E.	Flint
Ricker, O. L.	Cadillac
Sample, J. T.	Saginaw
Scrafford, R. E.	Bay City
Seybold, G. A.	Jackson
Sladen, F. J.	Detroit
Smith, Ferris	Grand Rapids
Smith, R. R.	Grand Rapids
Stone, R. C.	Battle Creek
Vaughan, J. W.	Detroit
Waldeck, G. M.	Detroit
Watkins, J. T.	Detroit
Webster, E. H.	Sault Ste. Marie
West, W. K.	Painesdale
Whinery, J. B.	Grand Rapids
Wilbur, E. P.	Kalamazoo

Dr. D. C. Rockwell, of Kalamazoo, has resumed practice after six months spent in postgraduate study.

Dr. W. T. Dodge, of Big Rapids, has been appointed Surgeon of the Michigan Soldiers Home, Grand Rapids. It is announced that he will assume his new duties on November 1st.

Dr. G. L. LeFevre, of Muskegon, and Dr. Guy L. Connor, of Detroit, were elected President and Secretary, respectively, of the State Board of Registration in Medicine at the annual meeting in October.

We regret to record the death of Mrs. C. T. Southworth, of Monroe. The sympathy of our entire membership is extended to Dr. Southworth and his son.

The Physicians and Surgeons of Michigan are invited to make full use of the Clinical Bulletin when visiting Detroit.

Editor of The Journal:

This will acknowledge receipt of your letter of July 3, 1925, in regard to the Detroit Clinical Bulletin. The following is a note which I hope you will see fit to publish in the next issue of the State Journal:

DETROIT CLINICAL BULLETIN

A daily schedule of clinical work of Detroit. The Bulletin lists all operations, medical clinics and ward walks and meetings, giving the name of the clinician and the hour of operation or presentation.

The Bulletin is available at all hospitals in Detroit, at the Detroit College of Medicine and Surgery, at the surgical instrument houses, and will be mailed to visitors at the hotels before eight o'clock, a small charge being made to cover special postage.

The medical profession is invited to make full use of the Bulletin.

The bulletins of other cities are posted at the Wayne County Medical Society Building daily for the convenience of visitors.

Very sincerely yours,

O. H. Whittaker, M. D.,

Chairman, Detroit Clinical Bulletin Committee.

Our Society Business and Activities

HARVEY GEORGE SMITH

EXECUTIVE SECRETARY

NOTE: This Department will each month contain a discussion and report of our Society work and planned activities. Your interest and correspondence as to your problems is solicited.

OFFICERS OF COUNTY SOCIETIES

Who are the officers of the County Medical Societies?

The answer is found in the last part of the advertising section of The Journal, where a whole page is devoted to the names of the County Medical Societies, the presidents, the secretaries and their respective addresses.

There is no need to write an extra letter to the State Society, to waste two cents and an envelope. Ever since the Journal has been published the list of officers has appeared in each number of the Journal.

The minimum program for County Medical Societies has initiated requests for information by officers and members of County Medical Societies. These are indications that all the County Medical Societies are to have programs of activity. That co-operative relationships between and among societies are to be established; that members are to have scientific programs in each society and with regularity, and that each member will have an opportunity to serve his fellow practitioner and his fellowman.

To the officers of the various societies will fall the duty of fulfilling the requests made by Secretaries and committees of adjoining societies. Accept the duty as a privilege. Send a scientific program team in exchange for one from another county. Be a friend to your fellow practitioner and fellow officer. Find the list of secretaries in the last pages of the Journal.

For County Society officers to fail in the duty that is coming to each will mean failure for County Society programs. *Record progress, not failure.*

REPORTS

Reports of County Medical Societies are being written throughout the state as the activities of the various organizations are begun for the new year. Many, and perhaps all societies are discussing new programs. Secretaries and presidents are seeking new methods to bring about greater efficiency in Society activity. Speakers and programs are arranged, new problems are being solved. New plans are being adopted. Members are bringing constructive suggestions for the work of the Society. The minimum program is being adopted throughout the state. Speakers are coming with special papers and discussions. Scientific teams are going from one County Society to a neighbor Society. Members are being assigned public health talks by the Joint Committee on Public Health. County Societies, as units, are entering into toxin-antitoxin campaigns as community protective measures. The entire minimum program will be in action in every Medical Society of Michigan within the next month. Here is an array of accomplishment. How are we to know about it? How are members throughout the state to know what is being written into history? There is only one way to secure this information. Every secretary should record a complete record in his own books and send a complete report of every activity to the State Society for publication in the Journal.

Who knows what the future will demand of the history that is being written now in the records of County Medical Societies? Twenty, thirty, fifty years hence some one may wish to write a history of the science of medicine in Michigan. Could the archives of County Medical Societies serve a better purpose? Write reports and send copies to the Journal.

PUBLICITY

Editors of newspapers are interested in knowing the facts of Scientific Medicine. They are anxious to interpret them for their readers. Newspapers purpose to give information on all subjects, education, business, science, agriculture, sports, etc. Can they fulfill their position if they fail to give publicity to the Science of Medicine?

The question in this field is, where is the source for information, who knows what is being accomplished, who knows the newest contributions that have been recognized by the profession? The editor is interested in facts and the reliable source for securing them. The medical profession already is prepared, through its State and County organizations, to give editors of daily and weekly newspapers the facts relative to the science of medicine.

The County Medical Societies in Michigan are and should be the reliable source to which the editors can come for information on the science of medicine. Officers should meet with the editors and discuss with them the facts available to their respective newspapers.

The Cadillac Evening News gave half column front page space in three issues for the post-graduate conference held in Cadillac on October 8th. The following heading and paragraph give some idea as to the kind of publicity.

"Fifty-three Physicians Enjoy Addresses by Six Members of the Profession".

The physicians had a dinner at the Hotel McKinnon in the evening while at noon they were guests of the Exchange Club. Doctors Eggleston and Jackson were the speakers before the Exchangites and quite a group of Rotarians also attended the meeting.

The Sanitarium speaker stressed the progress that has been made in preventative medicine, pointing out that the medical profession aims to do all it can to prevent people from becoming ill. Doctors would rather be health advisors than life savers in a pinch, the speaker said. He predicted much greater progress in the future, showing how much farther animal husbandry has gone than human progress along health lines, largely because man pays so little attention to his own needs.

The Kalamazoo speaker voiced a message of optimism for the laity. He said that people were becoming better acquainted with their physicians. He traced the history of the discovery of bacteria and the benefits of research along that line. Medical progress also was referred to with the prediction that the future would bring much more than has the past, as each new step makes the next one surer.

The meeting was the most ambitious one the profession ever has held in Northern Michigan and was greatly enjoyed by the doctors of this district.

Each County Medical Society from time to time has opportunity to assist local editors by giving them reliable information on the science of medicine. The layman is interested in facts, not follies.

THIRTY-FOUR COUNTY SOCIETIES ADOPT THE MINIMUM PROGRAM

The minimum program for County Medical Societies has been adopted unanimously to this date by thirty-four County Medical Societies representing eleven Councillor Districts of the Michigan State Medical Society. The adoption of the program will directly affect twenty-five hundred members, or more than 75 per cent of the total membership.

During the past year the problem of the County Medical Societies has been considered by officers of societies throughout the state and by the Council and officers of the Michigan State Medical Society. In summarizing the suggestions and problems offered by the various officers a formulated program was developed and presented to the Executive Committee and the Council for approval. Both gave unanimous support to the program and recommended that all County Societies become active units in its development. In order to present the program to the County Societies a series of meetings was held by councillor districts of the constituent society officers and councillors to discuss the active work of each Society, present the minimum program and adopt it, if it met with the approval of the officers. At each the officers of the thirty-four societies gave unanimous approval to the program. The following meetings were held:

September 21—Ninth District, Cadillac. O. L. Ricker, Councilor.

September 22—Tenth District, Bay City. F. S. Baird, Councilor.

September 23—Eighth District, Saginaw. J. D. Bruce, Councilor.

September 24—Seventh District, Port Huron. A. J. MacKenzie, Councilor.

September 25—First District, Detroit. J. Hamilton Charters, Councilor.

September 26—Sixth District, Flint. H. E. Randall, Councilor.

September 30—Second District, Jackson. B. F. Green, Councilor.

October 1—Third District, Battle Creek. R. C. Stone, Councilor.

October 2—Fourth District, Kalamazoo. J. B. Jackson, Councilor.

October 13—Fifth District, Grand Rapids. B. R. Corbus, Councilor.

October 16—Eleventh District, Muskegon. Geo. L. LeFevre, Councilor.

The total number of officers and members of program committees who attended the conferences on the minimum program was ninety-eight, including the eleven Councillors. The officers of each Society agreed, in accepting the program for their society, to present it with full details to their respective members for full discussion and final adoption as soon as meetings could be arranged.

Each County Medical Society, in adopting the minimum program of activity for the coming year, has placed itself on a sound business and educational basis. Each organization will have a plan of work, will have a goal for the year established and will have active workers in the conduct of its affairs. The president and the secretary have their duties, but they alone cannot make an efficient and valuable Society. Each member of every Society has a piece of work to do and each should accept his duties as opportunities for the advancement of the profession and the science of medicine. In the scientific section of the program regular post-graduate activities may be conducted. The periodic health examination offers a field for the preservation of the health of the members and at the same time will help to make the physician the councilor on all health matters relative to the lay individuals of the community. The field of social endeavor may be so conducted as to bring about the most friendly relations among all members of the Society. Scientific teams are service-giving groups of members, who will give of their time to help their own Society and two or three adjoining Societies, and for such service each Society will receive service and benefits. The public is an indirect part of every Society. It waits with

an open mind to be informed on the science of medicine, the leaders, men of history who laid the foundations for modern medicine. The public hardly realizes that it is constituted of the most intricate and marvelous machine of all, and yet it never hesitates to take an ordinary automobile to the best mechanic available. Who can be the educators of the public but the members of County Medical Societies? The public offers a field of service for every physician.

By adopting the minimum program of activity County Societies have placed themselves on a sound basis for accomplishment for their members and for the advancement of the science of medicine.

THE CADILLAC POST-GRADUATE CONFERENCE

The second post-graduate conference of the Michigan State Medical Society for the Ninth District, held at Cadillac, proved to be one of the most successful conferences held in the state. The program was carried out as previously arranged. Dr. O. L. Ricker opened the conference with a few remarks in which he welcomed the visiting doctors who were in attendance.

"In behalf of the Michigan State Medical Society, I am proud to welcome you to a second conference, for it is with much gratitude on the part of the committee to know that they have been successful enough to have a call for the second in this district. Let us hope that we may today have the best meeting ever held."

Dr. J. B. Jackson, chairman of the Council of the Michigan State Medical Society, was present and made a few remarks relative to the work of this organization. The plans of the local committee were outlined to the physicians by Dr. W. J. Smith of Cadillac, who was chairman of the entertainment for the day.

The first talk on the program was given by Dr. Elmer Eggleston of Battle Creek, his subject being "Physical Examination with Demonstration." This not only was important to the medical profession, but to the laity. Dr. Eggleston was well able to put this subject over, he being one of the best of internists in Michigan, and when his 30 minutes were up many of the physicians called for more. Dr. J. B. Youman of Ann Arbor talked upon "Arthritis and Its Treatment" The State Board of Health was represented by Dr. G. Ramsey, who discussed the importance of protection from sore throat, especially the kind that is so prevalent at the present time, that of streptococcus sore throat.

The physicians met with the Exchange Club at noon. Dr. S. C. Moore presided and Doctors Eggleston and Jackson were the speakers. In the afternoon Dr. Schuster of the State Hospital of Traverse City, and Dr. Earl Campbell of the same institution, gave two very interesting papers on "Neurology."

Dr. J. B. Jackson gave an excellent talk on "Tuberculosis and the Value that the X-Ray Bears to the Diagnosis." Dr. H. E. Randall of Flint gave a very interesting paper on head injuries, which are so prevalent at this time, as so many people are being injured by automobiles, giving a very definite time when operations are to be performed. He also discussed the importance of early diagnosis of appendicitis, bringing out in his paper the fact that more people die from appendicitis than from auto accidents, thus advocating early operation.

One of the most important discussions in the afternoon was rendered by Dr. J. B. Youmans of Ann Arbor. He gave one of the best talks on "Essentials and Methods on Laboratory Diagnosis", how the local physicians could apply them and the value of the extensive work which the University of Michigan was doing along this line.

Following the 6 o'clock dinner at the Hotel McKinnon, Dr. Currie of Flint outlined the principle and value of a good, lively Medical Society to its community.

Mr. Wheeler, who was to talk on "Conservation of Forests", gave a very brief talk, and invited the physicians to come to the high school auditorium, where he gave his lecture the same evening.

Most of the physicians left for their homes about 9 o'clock, feeling that they had been amply repaid for their visit at Cadillac.

O. L. Ricker.

Deaths

Arthur L. Seeley, M. D., 1860-1925.

Resolved, By the Council of the Michigan State Medical Society that in the death of Arthur L. Seeley, of Mayville, who after having faithfully served his community for 31 years as a family physician, and who by his loyal allegiance as a member of the Michigan State Medical Society, and who by his knowledge and judgment for many years as a member of the Council has encouraged and promoted medical organization and progress, and who by his example of faithfulness, loyalty and sincerity has endeared him to us, be it

Resolved, That we tender to Mrs. Arthur Seeley and family our heartfelt sympathy in their great loss and may God in His wisdom assuage their grief. Be it also

Resolved, That copy of this resolution be placed on the minutes of the meeting and that a copy be sent to the bereaved family.

H. E. Randall
C. G. Darling
J. D. Bruce,
Committee.

County Society News

KALAMAZOO ACADEMY OF MEDICINE

KALAMAZOO CO.

MINUTES OF SEPTEMBER MEETING

The September meeting of the Kalamazoo Academy of Medicine was held on Tuesday the 15th, 1925. A fellowship dinner at the Bluebird Cafe preceded the meeting. The regular session of the Academy was called to order by the President, Dr. Light, and a report of the June meeting read by the Secretary.

Dr. Gregg discussed the policy of proceding the meetings by a dinner which had a tendency to decrease formality and increase attendance and sociability. He brought out the advantages of having the dinner in the Academy rooms and also the impossibility of giving such dinners without added equipment as an aid to service. He desired an expression by members of the Academy of their desires in the matter.

Doctors Crum, Barrett, Van Ness and Collins expressed themselves as favoring the dinners, and increased sociability brought about by the informal gatherings preceding the meetings.

Dr. Gregg made a motion that a committee be appointed to investigate the requirements and probable cost of the necessary equipment for serving dinners in the Academy rooms.

Seconded by Dr. Crum. Carried.

The president appointed the social function committee to make the necessary investigation and report.

Dr. Jackson, through the Secretary, reported that the Committee appointed to confer with the School Board awaited action from the School Board.

Doctors Crum and Sheppard reported as delegates from the State meeting. The program was carried out as published in the Bulletin.

The Executive Secretary of the State Medical Society at a conference with the officers of the Academy, October 2nd, presented: "The Minimum Program for County Medical Societies" which is being urged throughout the state. It is worthy of consideration.

The physical examination program is especially valuable in bringing before the public the advantage of periodic health examinations and in combatting the activities of some of the commercial laboratories which are encroaching the field of medicine.

Blanks for health examinations were standized by a committee appointed by the A. M. A. These blanks and a manual of suggestions for the conduct of periodic health examinations of apparently healthy persons may be obtained from The Journal of the A. M. A.

There should be some action taken on Section 3 of the proposed program if the Kalamazoo Academy of Medicine is to keep up with other Societies throughout the state. How would it be to have a committee appointed to investigate the possibilities in our Society?

The program is a Society program; not just a plan to keep the officers busy. Look it over and decide what you would like to do about it. Free discussion is desired.

HOUGHTON CO.

The Houghton County Medical Society held its regular monthly meeting Tuesday, October 6th, at the Miscowaubic Club, at 8:30 p. m. with 21 members present.

After reading of the minutes and allowing of the bills, a report of the Board of Censors was received in regard to Dr. Henry Holm. Dr. Roberts stated that Dr. Holm will pay his dues in the Marquette-Alger County Medical Society and request a transfer to the Houghton County Medical Society which will be submitted as soon as possible.

A motion was made by Dr. LaBine that the week of November 1st to November 7th be set aside for the annual physical examination of the members of the Society and their families.

Dr. J. W. Moore next presented a resolution with regard to free surgery for benevolent and fraternal organizations. Doctors Bourland, Joy and Moore were appointed to draw up a resolution which was signed by all present. I am inclosing a copy of this resolution which you will kindly print in The Journal and state that it has been signed and accepted by the Houghton County Medical Society.

The first paper on the program was read by Dr. E. Bicknell, of the C. & H. Staff, on "Insulin". Dr. Bicknell took up treatment of diabetes in its various forms, the diet, and treatment of coma. He covered the ground very thoroughly. This paper was discussed by Doctors Bourland and LaBine.

The next number on the program was a review of recent literature on "Mercurochrome" by Dr. Bourland. Dr. Bourland read extensively from Dr. Young's work on this subject. This paper was discussed by all present. The Society then adjourned to lunch.

I wish to state that I, as secretary, have been wonderfully pleased with the excellent attendance which we have been having, 21 members being out for our last meeting in spite of inclement weather.

The Houghton County Medical Society's action in taking up annual physical examination of the members and their families is certainly a wonderful step forward.

G. C. Stewart, Secretary.

BRANCH-HILLSDALE, LENAWEE CO.

The joint meeting of the County Medical Societies of the Counties of Branch, Hillsdale and Lenawee, was held at East Hall, Hillsdale College, on the evening of Tuesday, October 13th, at 6:30 p. m., the President, Dr. J. H. Johnson in the chair.

An excellent dinner was served, after which the reading of the minutes being deferred, the President introduced the speaker of the evening, Dr. J. D. Bruce, Internist, of the University of Michigan.

Dr. Bruce gave a highly interesting and instructive address on "Common Errors of Digestion," covering as far as possible in the limits of a single evening, the pathology prophylaxis diagnosis, prognosis and treatment of this important group of diseases.

Dr. Bruce's paper was quite fully discussed by Doctors Sawyer, Wade, McLain, Robson, Hall, Oliver, Green, McFarland and others, all of whom

brought out important points from the great fund of their experience.

A number of questions were answered by Dr. Bruce in closing the discussion, after which a rising vote of thanks was given the doctor for his illuminating address.

The question of the "Minimum Yearly Program for the County Societies" was brought up and Dr. Sawyer expressed as we believe, the sentiment of the members present, by saying, "I think the members of this Society are willing to carry out the 'Minimum Program' as outlined by the State Society, as far as possible."

After the meeting, the desirability of continuing the joint meeting of the three Societies was discussed and on account of their geographic position, the officers of the Lenawee County Society declined to continue the arrangement, at least during the winter months.

The question, so far as the Branch and Hillsdale County Societies are concerned, was left open for the present at least.

Adjourned.

D. W. Fenton, Secretary.

ALPENA CO.

The regular meeting of the Alpena Medical Society was held at the New Alpena House on Thursday, October 16th, at 6:30 o'clock. Doctors Newton and Foley entertained at dinner.

Present—Doctors Bell, McDanniels, O'Donnell, Newton, Foley, Sahs, Bertram, Secrist and Williams. Following the dinner Vice-President Secrist called the meeting to order and introduced Dr. O'Donnell, who read a very interesting paper on "Injuries of the Kidney." The paper was discussed by all the physicians present.

On October 19th the Alpena County Medical Society will have charge of the program for the Bay County Medical Society at Bay City. The following is the program:

"Influence of Weather Conditions on Health," Frank Permin, Local Meterologist, U. S. Weather Bureau.

"The Physician and the Specialist," Dr. S. T. Bell.

"Injuries of the Kidney," Dr. F. J. O'Donnell.

C. M. Williams, Secretary.

IONIA-MONTCALM CO.

The fall meeting of the Ionia-Montcalm Medical society was held at the Winter Inn Hotel, Greenville, Mich., Thursday evening, October 15th, 1925. Twenty members were present to enjoy the excellent dinner served by the management.

The first speaker of the evening was Dr. Alexander Campbell, Grand Rapids, who spoke on the subject, "Acute Pelvic Infections."

The subject was introduced by saying that four microorganisms were largely responsible for all acute pelvic infections:

1st, Neisser's coccus; 2nd, Streptococcus; 3rd, Staphlococcus; 4th, Coli communis.

Dr. Campbell made a plea for more careful examinations of patients coming to the office with minor pelvic complaints, and, if possible, to determine by bacterlogical examinations of smears, the predominating micro-organism present producing the infection.

He emphasized the fact that gonorrheal infections in women are accompanied by very little pain or symptoms which in many cases permitted them to pass through physician's offices untreated, and remarked that these cases were cured only by painstaking treatment over a long period of time or until the last organism in the genital tract was destroyed.

In discussing the various streptococcus types of infections, stress was made in regard to care used in treating septic abortions and obstetrical deliveries. The principal points were:

1st, Obstetrical conscience; 2nd, Matricular care; 3rd, Reduce all injury to minimum; 4th, Surgical repair.

This discussion was well received and a free discussion was indulged in by those present.

The second address of the evening was given by Dr. J. B. Whinnery, of Grand Rapids. His subjest was "Coronary Closure".

Dr. Whinnery presented in detail the finer points in diagnosis, pathology and treatment in his usual masterly manner.

The intense interest taken in this rather rare condition was manifested by the many questions asked by the members present.

A rising vote of thanks was extended the visiting physicians for the excellent program rendered.

A motion was made and unanimously carried to table the question of deciding the Minimum program of County Societies, until next meeting.

F. A. Johnson, Secretary-Treasurer.

JACKSON COUNTY

The September meeting of the local Society was held at Hanover, 16 miles from Jackson, in the Odd Fellows' Hall, with Doctors J. D. Van Schoick and H. H. Frazier, of that village, as hosts. The meeting was preceded by a chicken dinner served in the lodge room by the local chapter of Rebekahs and after the dinner the members adjourned to the auditorium. Dr. Glenn Hicks, president of the Society, introduced the mayor of the village, who made an address of welcome. The Hanover Mixed Quartette won a great deal of applause by their harmony and the speaker of the evening, Dr. W. J. Z. Deacon, of the State Board of Health, Lansing, then gave an address on "Public Health". The meeting was in the nature of an experiment, being the first of a series of popular lectures to which the general public will be invited. Although the meeting was well advertised, the attendance of the laity was rather slim, although those who did attend enjoyed every minute of the speaker's address which was in terms that they could readily understand.

The meeting was honored by the presence of three visitors from Hillsdale: Dr. Sawyer, regent of the University; Dr. B. F. Greene, councillor of the second district, and Dr. Bower. These three motored up to look us over and evidently had a good time.

Dr. L. F. Thalner, city physician for the past three years, has tendered his resignation to take effect November the first, when he will go into general practice with offices in the Sun Building. His successor, another Michigan graduate, is Dr. Earl Ritchie, a former resident of this city, but a general practitioner in Detroit since his graduation.

Dr. Stanley H. Reich, concerning whose illness we made mention last month, was taken to the Peter Bent Brigham Hospital in Boston and operated by Dr. Cushing, who found a neuroma in the base of the cerebellum. Dr. Reich made a rapid recovery from the operation and is now home, but his eyesight has not yet returned.

Dr. R. E. Newton, a graduate of St. Louis University Medical School, 1924, has taken over Dr. Reich's offices in the Carter block and will do general practice.

Dr. H. H. Frazier, formerly of Hanover, has sold his practice there and moved to Jackson with offices in the Rogers Building.

The August meeting of the County Society was held at the Hayes Wheel Club, Round Lake. Swimmining, baseball, and barnyard golf featured the early evening program after which a splendid dinner was served and the meeting called to order. Addresses were made by Dr. Bruce, now head of the department of medicine at Ann Arbor and Dr. Haines, the new superintendent. The names of Dr. Frazier and Dr. Nobert were reported on as elected to the County Society. Dr. Nobert is in general practice in Henrietta.

As I write this, the news comes over the phone of the death of the only son of Dr. E. F. Lewis, Donald Lewis, age 8 months, of intestinal flu, with complications.

The Jackson Clinic has added to its staff, Dr. Stonehouse, formerly of the University of Michigan X-ray Department, as roentgenologist.

Our next meeting, the monthly October meeting, is the annual clinic month, but due to conflicting dates of other larger intersectional and national meetings in this month, the clinic will be held either the first or the second Thursday and Friday of November. A more definite announcement will be made later and we hope that our neighbors in Battle Creek, Marshall, Albion, and Lansing may see fit to attend. One-half day will be devoted to a symposium on "Physiotherapy." The speakers and the clinicians will be recognized experts in their respective lines and the two days should be worth while.

GRATIOT-ISABELLA-CLARE

The G. I. C. met in the Alma City Hall Thursday, September 24, at 8 p. m. to hear the report of the delegate to the State Society meeting, and to talk over plans for the winter meetings. The delegate was not present, so we did not have a real report, but the opinion of those who attended the State Society meeting was that it was a good program, but the Hall was a poor place to hear the speakers.

It was planned to have the annual banquet in December, and to secure a speaker on a non-medical subject.

The following motion was made and carried: "That the Secretary write the Chairman of the Legislative Committee to get a definite plan of action arranged for repeal of the statute which takes away the remunerations for reporting births and T. B. cases, and increases the penalty for failure to report the same."

Please publish in your correspondence department.

E. M. Highfield, Secretary.

WAYNE COUNTY

ANNUAL REPORT

REPORT OF THE PUBLICATION COMMITTEE—1924-1925

The results of the Publication committee's efforts have been before the entire membership each week during the past year so that any elaboration of its work is unnecessary now. Suffice it to say that the aim of the Committee and the Editor has been to maintain the Bulletin at as high a level as was attainable in fulfilling the needs of the medical profession—with a weather eye constantly peeled for keeping public opinion with us at all times. To this end we have refrained from taking issue too strenuously on certain matters so as to avoid unwarranted criticism of the profession at large, and have directed our efforts solely toward improving the status of the Society and its members. The attempt on our part to hasten the provision of a new clubhouse, for example, was prompted by the realization that this was and still is a most effective means for keeping the membership of the Society from splitting up into small units, while the campaign for Periodic Health Examination was aided and abetted by us because the profession needed to be awakened to the importance of keeping this type of work for itself.

As for financial returns, the Bulletin earned for the Society the sum of $1,063.68—a rather tidy amount when it is considered that no appreciable expense is incurred by the Society in the process of publication. The advertising in the Bulletin has become better paying since publication of our weekly has been continued throughout the entire year—a practice which ought to be continued for a variety of good reasons.

The Official Bulletin Publishing Company deserves commendation for its splendid efforts at making our Bulletin rank high among the many similar publications.

Respectfully submitted,

Wm. S. Reveno,
Editor and Chairman,
Committee on Publication.

MEMBERSHIP COMMITTEE REPORT—1924-25

Total active membership	1,234
Total paid up active members	1,154
Total delinquent	80
Life member	1
Resident associate	28
Total paid up resident associate	23
Delinquent	5
Honor members	5
Honorary members	10
Inactive	5
Total membership	1,359
Deaths	16
Transfer to other societies	3
Total number of new members for the year	118

Of which 85 are active, 27 are resident associate and 6 non-resident associate.

All of which is respectfully submitted.

J. Ham. Charters,
Chairman of Membership Committee.

DETROIT CLINICAL BULLETIN COMMITTEE REPORT—1924-1925

Shortly after Dr. Stapleton became President, the Detroit Clinical Bulletin Committee was appointed to develop a daily Bulletin of the medical work of the city, the committee consisting of a representative of each hospital as follows:

W. D. Barrett, M. D., Harper Hospital.

C. S. Kennedy, M. D., Grace Hospital.

R. C. Andries, M. D., Providence Hospital.

S. G. Penberthy, M. D., Children's & Mich. Mut.

S. I. Condit, M. D., St. Mary's Hospital.

Geo. VanAmber Brown, M. D., H. P. General Hospital.

Ed. Lynch, M. D., St. Joseph's Mercy Hospital.

C. C. McClintoc, M. D., Delray Industrial Hospital.

I. G. Downer, M. D., Jefferson Clinic.

D. J. Leithauser, M. D., Deaconess Hospital.

B. U. Estabrook, M. D., Herman Keifer Hospital.

A. H. Whittaker, M. D., Receiving Hospital.

The clinical work of the Lincoln and the U.S. Marine Hospitals and the Florence Crittenden Home is also scheduled daily.

The methods of the Bulletins of other cities were studied, the plan of publication drawn up and presented to the Council. The Council granted permission to the Society House Secretary to act as Director of the Bulletin, her duties in no way to interfere with her work for the Society. The Council specifically stated that the Society would in no way be responsible for any debts incurred and while sponsoring the publication of the Bulletin the Society would in no way help the Bulletin financially. It was thus necessary to publish the Bulletin by popular subscription. The cost of publication was estimated at twenty-five hundred dollars for the first year.

In order to determine the distribution of this cost, the number of operations performed during the previous eleven months and the number of surgeons was ascertained.

There were sixteen hopitals, two of which declined to publish their clinical work, namely the Henry Ford Hospital and the Detroit Diagnostic Hospital. There were five hundred and nine surgeons of the various staffs, and thirty thousand seven hundred and ninety-four operations were performed during the eleven months previous to the publication of the Bulletin. The total amount was easily obtained.

Harper Hospital	40 %	11,750
Grace Hospital	14 %	3,944
Providence Hospital	14 %	3,928
Children's Mich. Mut. Hosp.	.....	.....
St. Mary's Hospital	12 %	3,382
St. Joseph's Mercy Hospital	3.2%	786
Jefferson Clinic	1.3%	350
Delray Industrial Hospital	.4%	106
Receiving Hospital	6.6%	1,821
Herman Kiefer Hospital	.....	.....
Highland Park General Hospital	6.7%	1,857

Mrs. Helen Spencer was appointed Director by the Committee. The first Bulletin was published May 4, 1925.

The Bulletin is distributed each night by messenger to all of the Hospitals, medical colleges and surgical instrument houses and to visitors at the hotels. Seventeen copies are mailed daily to subscribers, etc. The hospital staffs have co-operated without exception.

The actual publication is being done very efficiently and in a form which has brought many letters of congratulation to the director, Mrs. Spencer. The committee hopes that the medical department of the hospitals will make a greater effort to have their work scheduled, particularly the medical ward walks and autopsies.

September 21st, 1925.

Amount collected	$1,927.60
Amount pledged	575.00
Total amount received	$2,502.60
Salaries, supplies, etc.	1,158.40
Cash on hand	769.20

The committee for the second year of the publication of the Bulletin have the work of developing a wider distribution for the Bulletin, giving full publicity throughout the state and country so that the visitors will know that the Bulletin is at their service.

The committee hopes the Bulletin will be most enthusiastically supported during the second year, both financially and with material for publication. The committee also wishes to extend to the President, Dr. William J. Stapleton, their appreciation of his continuous help to Mrs. Spencer for her untiring efforts in the interests of the Bulletin. Mrs. Jane White of the Chicago Bulletin also rendered valuable assistance.

Detroit Clinical Bulletin Committee.

LEGISLATIVE COMMITTEE REPORT

As Chairman of the Legislative Committee, it gives me a feeling of gratification to report to you the success attained by your committee at Lansing.

Knowing that the chiropractors of the State would try every scheme to get bills passed, this committee secured lists of the members of the legislature and senate early in the fall of 1924 and made the acquaintance of as many as possible.

The committee as a whole responded to any call for special work when it was needed, and I desire to take this opportunity to thank them for their support throughout the session. I do not wish to elaborate or extol the work done last year, but hope the members of Wayne County will read this report, as I wish to warn, or better still, post each one on what is best to do.

As you know, there is the regular chiropractor who obtains his license by going before the Medical Board for examination, and there is the "outlaw," who spends a few weeks or months in study. The licensed men have no use for the outlaw, but cannot condescend to be examined by the Medical Board, so they want a bill to have their own examining board, while the outlaw wishes a bill to license all who have been in practice two years, and have the equivalent of a high school education (which might mean anything), their own laws and their own board of examiners. First of all, they had no license to have the two years of experience, and if they have their chiropractor bill passed in the state, all the work of our boards of health of the state and counties, medical research, and study of our universities would be for naught, because, not believing in the germ theory, a special adjustment would cure a case of diphtheria, smallpox, syphilis, or anything.

Serious attention must be given to this condition by the members of our profession, because the people, with their legislators and senators, have been educated to think that the medical men are jealous of this supposed new school of medicine, and are working tooth and nail to keep from practicing because it would hurt the medical practice. I have been told this story by members of our legislative bodies at Lansing, and it was given as the reason why they supported a chiropractor bill. The standard of education is low, medicine, dentistry, etc., must be raised instead of being thrown open to the winds to allow a few semi-educated pseudo-professional thousands to destroy what has been done in the past century for the people. I wish to advise every physician in the State of Michigan to get acquainted with the legislator or senator from his district and to explain to them the situation as it is and how it would be, should legislation be passed to license all the chiropractors, magnetors, etc. This is a very serious situation, and if every physician followed the above advice, and each state member of our legislature had a dozen men visit him, with the same story, they would see the true condition and protect their own people, their electoral and the state at large.

During the past year three bills have been launched at Lansing, two by the outlaws, and one by the registered chiropractors. Any one of the three was worse than the others. The Wayne County Medical Society should be thankful that the Legislative Committee of the State Society were on their toes, that many members of the Health Committees in the senate and legislature were druggists, and that your own committee was awake. Somehow, in some way, legislation will be "put over" if you do not act as stated.

I wish to personally thank Senators Condon, Green and Dr. F. Bohn, and Legislators Reid of Detroit, Peters of Monroe and Upjohn of Kalamazoo. All three bills, during last session at Lansing, were kept in committee and never saw the light—so you can see how the above named gentlemen deserve our thanks.

The expense of your County Committee was nominal and has been paid by the Treasurer.

The Legislative Committee of the Chiropractor State Society collects Fifteen Dollars a week from each practitioner to use for propaganda, lawyer fees and lobbying expenses, etc., while we medical men "kick" about our state medical fee of Twenty Dollars a year.

Let us all waken up to the fact that we are living in the present century, that there are many new upstarts that envy the position held by our profession, and they will sacrifice honor, religion or anything, to get a foothold. To protect the public, we must be on the alert and counteract any "wildcat" legislation by educating the men going to Lansing to act as our goverment law makers.

I am,

Yours truly,

R. E. Loucks, M. D.,
Chairman Legislative Committee.

September 1, 1925.

ENTERTAINMENT COMMITTEE REPORT

During the fiscal year this Committee has arranged and managed a number of entertainments. The dates of these entertainments and the program are briefly as follows:

September 29, 1924, Smoker.

November 24, 1924. Feather Party.

January 27, 1925. Dinner for Chas. H. Mayo, M. D., and Henry S. Plummer, M. D. of Mayo Clinic, Rochester, Minn.

March 16, 1925. Dinner for Robert B. Osgood, M. D., of Boston, Mass.

March 30, 1925. Smoker.

June 10, 1925. Testimonial dinner for F. W. Robbins, M. D.

All of these meetings were very well attended and the members of the Committee therefore feel well repaid for their efforts.

Besides arranging these regular entertainments the Committee has also taken care of out of town guests who came here to lecture before our Society. Dinners were arranged for these guests and were well attend as a rule.

There is a balance of $33.53 in the hands of the Committee which will be turned over to the chairman for the coming year at any time.

The Chairman takes this opportunity of thanking all members of this Committee for their efficient help and great willingness to work on all occasions when called upon.

B. Hjalmar Larssan,
Chairman Ent. Com.

NECROLOGY COMMITTEE REPORT

Your Committee on Necrology has to report the loss of sixteen members through death during the past year. The previous committee reported only six deaths for the period 1923-1924 so that our loss this year has been a heavy one.

Among the departed were two honorary members, Oscar A. LeSeure and C. Henri Leonard, a former president of the old Wayne County Mediial Society and one honor member, William C. Stevens. These members lived long and valued lives of three score and ten years or more and had all retired from active practice of the medical art.

Only one of the active members reached the allotted limit of seventy years, Willard Cheney. B. D. Harison, the veteran secretary of the State Board of Registration in Medicine, came within a year of doing so, while a number were cut off between the fortieth and fiftieth years. One ex-president of the present Wayne County Medical Society, E. W. Haass, is to be numbered among our dead.

As soon as possible after the demise of each member a brief note appeared in the Bulletin, and it will be sufficient here to recall once more the list of our losses.

Oct. 6, 1924.	James A. Watson.
Oct. 14,	James A. McGraw.
Nov. 3,	Carroll L. Storey.
Nov. 4,	Moses Fechheimer.
Nov. 12	William C. Stevens.
Nov. 19.	Anna Odell.
Dec. 6,	Beverly D. Harison.
Dec. 7,	Chas. A. Bird.
Dec. 8,	Malmolm McColl.
Mar. 3, 1925.	John H. Rock.
Mar. 6,	Willard Cheney.
Mar. 7,	Francis O. Reilly.
Apr. 17,	Theodore Schmalzreidt.
May 13,	Oscar A. LeSeure.
July 10,	Ernest W. Haass.
July 31,	C. Henri Leonard.

Respectfully submitted,

Ray Connor, M. D.,
Chairman.

PUBLIC HEALTH EDUCATION COMMITTEE REPORT

Three years ago the Wayne County Medical Society conceived the idea of conducting an educational campaign among the laity of Detroit and Wayne County for the purpose of informing them in a simple way regarding the present status of medical and surgical knowledge. It has been felt that to take the public into our confidence and to inform them as far as they are able to intelligently understand the various phases of preventive medicine will safeguard them against the claims of irregulars and charlatans. The public health education committee of the Wayne County Medical Society is a unit of the public health educational forces of the State of Michigan known as the State Joint Committee on Public Health Education. There are nine of these units which comprise the State Joint Committee. Professor W. D. Henderson, who is at the head of the University Extension Department occupies the position of Secretary of this State Joint Committee. The Committee of the Wayne County Medical Society have found the services of Professor Henderson very valuable in securing local audiences. He has been able to obtain a hearing for speakers chosen by your committee when a direct appeal might be construed as a matter in which the physician of Detroit "had an axe to grind."

The number of public health lectures given in Wayne County during 1924-25 was an increase of 60 per cent over the number of lectures assigned for 1923-24. The total number of lectures given in Wayne County amounted to 134 as follows: Demouth 1; Redford 2; River Rouge 1. The average attendance per lecture in Detroit was 172. The total attendance for 1924-25 was 21,106. The average attendance during the year closed was considerably lower than the year before. This decrease was due in large part to the fact that a number of health lectures were given during 1923-24 in the large auditorium of the Cass Technical High School, where the attendance was 3,000 at each lecture. It has been the experience of doctors that the smaller audience is easier to lecture to and the address is apt to be much more effective in the smaller audience than those from 500 and up. The following doctors delivered public health lectures in Detroit during the year 1924-25:

Dr. M. D. Campbell
Dr. H. L. Clark
Dr. Suzanne Sanderson
Dr. F. E. Curtis
Dr. M. B. Kay
Dr. John L. Chester
Dr. W. H. Gordon
Dr. F. G. Buesser
Dr. H. A. Reye
Dr. N. Ginsburg
Dr. A. L. Jacoby
Dr. C. L. Straith
Dr. H. M. Rich
Dr. H. F. Crossen
Dr. W. H. McCracken
Dr. W. J. Stapleton, Jr
Dr. W. D. Henderson (Ann Arbor)
Dr. David W. Haskins
Dr. G. L. Keifer
Dr. J. H. Dempster
Dr. R. E. Loucks
Dr. Louis Klein
Dr. B. C. Lockwood
Dr. A. F. Jennings
Dr. A. Altshuler
Dr. H. R. Carstens
Dr. J. B. Kennedy
Dr. Chester Doty
Dr. L. J. Hirschman
Dr. A. C. Thompson, D. D. S.
Dr. Douglas Donald
Dr. W. E. Kahn
Dr. T. B. Cooley
Dr. E. D. Spalding
Dr. O. M. Gruhzit
Dr. T. K. Gruber

All of which is submitted.

J. H. Dempster.

COMMITTEE ON NURSES REPORT

The Committee on Nurses has had no matters referred to it by the Council. It has received no communications.

The Chairman has attended with some regularity the meetings of the Council and rendered such service as he has been called on to perform.

Respectfully,

B. Raymond Hoobler.

LECTURESHIP FOUNDATION COMMITTEE REPORT

During the past year four lectures have been given under the management of this Committee for the Beaumont Foundation. The first three lectures were given by Dr. Chas. H. Mayo and Dr. H. S. Plummer of Rochester, Minnesota, dealing historically and practically with the subject of thyroid diseases. The attendance at these meetings was the largest we have had since the Foundation was established. The fourth lecture was given by Professor Robert E. Osgood of the evolution of Orthopaedic Surgery." This lecture laid the foundation for the future work to be done especially for the promotion in a broad surgical way of orthopaedic medicine. It is earnestly desired by the Committee that a permanent subscription list of names shall be established for the book publications of these lectures.

Respectfully submitted,

James E. Davis,
Chairman.

CANCER COMMITTEE REPORT

Mr. President and Members of the Wayne County Medical Society:

Gentlemen:

Your Cancer Committee for the year 1924-25 met early in October and discussed plans for the work of the Committee during the year. It was decided not to follow the plan of other years of trying by means of lectures before lay organizations, theatres, etc., to educate the public, the sentiment being that inasmuch as so very little is actually known concerning the cause and treatment of cancer, there was necessarily a divided professional opinion and that to try to educate the public as to what should be done for cancer, under the circumstances we were causing confusion.

We deemed it more rational to do what we could to educate ourselves in the latest work on the diagnosis of cancer, and so better prepare ourselves to inform the public on this important question. Consequently this plan was carried out:

A joint meeting was held with the American Roentgen Ray Society at its mid-winter session in Detroit, February 19-21. To this meeting we brought the American College of Surgeons' Bone Registry. Doctor Codman, of Boston, who has charge of the Registry and his able assistant, Miss Gilmore, accompanied the exhibit. After this meeting the exhibit was continued at the Wayne County Medical Society building, from February 21st to the 28th. This exhibit was attended daily by a large number of physicians and students and we are sure the benefits were worth the effort. For a beginning, we thought this first exhibit of this kind in the city was a great success.

We also brought Dr. Bainbridge, of New York, to Detroit, who delivered a lecture on Cancer before the joint meeting of the Wayne County Medi-

cal Society and the American Roentgen Ray Society.

The expense of the Society for the exhibit was $276.00, most of which was for the purchase of illuminating boxes, which are the property of the Society and it is hoped will frequently be used for exhibits of various kinds.

Respectfully submitted,
The Cancer Committee.
Rollin H. Stevens, Chairman.

PROGRAM COMMITTEE REPORT

Under the auspices of this Committee there were held 33 meetings during the year. Of these there were 19 presided over by local talent while 14 were presided over by men from out of town. The papers were presented to this Society by 59 men of whom 14 were from out of the city and 45 were from our own Society.

Arrangements were made to offer evenings to the staffs of the various hospitals. The following hospital staffs presented programs:

1. Receiving Hospital.
2. Providence Hospital.
3. St. Mary's Hospital.
4. Harper Hospital.
5. Grace Hospital.

These were for the most part conducted in the form of symposia.

Joint meetings were held with the A. P. H. A., the Detroit Gynecological Society, Detroit Dermatological Society, and The American Roentgen Ray Society.

The following men from out of the city appeared before us:

Dr. Rosenow, Rochester, Minn.; Dr. Fraenkel from Vienna; Dr. Warthin from Ann Arbor; Dr. Henry Schmitz, Chicago; Dr. Reyn, Denmark; Dr. Camp, Ann Arbor; Dr. C. H. Mayo, and Dr. H. S. Plummer, Rochester, Minn. Dr. Paccini, Chicago; Dr. Kretschmar, Chicago; Dr. Mosher, Kansas City, Mo.; Dr. Osgood, Boston; Dr. Hickey and Dr. Frank Wilson of Ann Arbor.

The program for the medical section meetings was provided by Dr. J. L. Chester, and his secretary Dr. Spalding.

That for the Surgical section meetings by Doctors G. V. Brown and Geo. Burr, I wish at this time to thank them for their splendid work.

Our thanks are also due to our worthy President, Dr. William J. Stapleton, who at all times supported the Committee and assisted it in every possible way.

There were at all times plenty of material of excellent worth and it has indeed been a pleasure to arrange the program for this Society during the preceding year.

Harry L. Clark, M. D.,
Chairman of the Committee.

LIBRARY COMMITTEE REPORT

The Committee begs to report encouraging growth and usefulness of the Medical Library.

Established volumes July 1st, 1924, 19,067.
Added volumes 1924 and 1925, 2,024.
Total volumes in Library, 21,091.
Total number of people using library, 14,429.

This is by far the largest number of persons using the library in any one year.

Among the accessation during the year are several sets to complete our files, among those being the:

British Journal of Physiology, Vol. 1 to 51 complete.

Jahrbuch F. Kinderheilkunde, 49 vol.

Transact of Ophthalmology Society of United Kinkdom, 43 volumes.

Among the gifts received the most important were the following:

Foreign Surgical books and periodicals, some rare and valuable, Dr. F. W. Hutchings.

Archiv fur Verdauungkrankheiten, vol. 24-34, 1919, 1924-25, from Dr. C. D. Aaron.

Review of Applied Entomology, Series B. Medical and Veterinary, vol. 4-11, 1916-23, from Parke, Davis.

Bulletin de la Societe de Pathologic exotique, vol. 9-13, 1916, from Parke, Davis.

Chemical Abstracts, parts of vol. 1-12, from Mrs. Jackman. Journal of American Chemical Society, parts of vol. 29-40, from Mrs. Jackman.

Mention should also be made of the gift to the Society of an excellent portrait of Dr. Benjamin Waterhouse, by Dr. Guy L. Kieffer.

Your Committee feels that the library is progressing rapidly under the auspices of the City Library Commission and we are pleased to report the utmost co-operation and cordiality in their relations with the Committee.

Respectfully submitted,
Herbert M. Rich,
Chairman of Library Committee.

ETHICS COMMITTEE REPORT

My dear Dr. Stapleton:

I beg herewith to submit report from the Ethics Committee for the past year. We held six meetings and disposed of approximately thirty cases all of which were of a personal nature, having had no complaints during the real relative to institutions.

Very truly yours,
Wm. P. Woodworth, M. D.,
Chairman, Ethics Committee.

Among the Books

A Review and Frank Appraisal of Medical Books That are Proffered to the Profession by Publishers.

OLD AND NEW VIEWPOINTS IN PSYCHOLOGY—Some Interpretations and Applications of Psychological Principles, by Knight Dunlap, Professor of Experimental Psychology in the Johns Hopkins University. Baltimore; formerly President American Psychological Association. The C. V. Mosby Co., Publishers, St. Louis.

This volume contains three public lectures delivered at the Johns Hopkins University and two papers read before the Southern Society of Philosophy and Psychology. The lectures on Mental Measurements and on Present Day Schools of Psychology were delivered under the auspices of the Johns Hopkins University and the lecture on The Psychology of the Comic was delivered under the auspices of the Johns Hopkins Women's Club. The paper on Psychological Aspects of Spiritualism was read at Macon, and the paper on Reading of Character from External Signs at Memphis.

The lecture on Mental Measurements was prepared with the co-operation of Dr. Buford Johnson

and Mr. Schachne Isaacs of the Staff of the Department of Psychology of Johns Hopkins, and represents therefore a departmental viewpoint instead of merely the author's personal opinions. We believe that the points made in this lecture are of great importacne and that they should be carefully considered by every psychologist as well as every other person working in the mental measurement field.

The four other lectures represent the author's own conclusions primarily, but have had the benefit of the criticisms of his two colleagues.

OBJECTIVE PSYCHOPATHOLOGY—By G. V. Hamilton, M. D., Director Psychobiological Research, Bureau of Social Hygiene, Inc., New York City. With foreword by R. M. Yerkes, Ph.D., LL.D., Professor of Psychology, Yale University. Published by the C. V. Mosby Company, St. Louis, Mo.

This book is essentially a psychopathologist's account of his studies and interpretations of various modes of human and animal behavior. It is meant to reflect the importance of effecting such studies by the use of scientifically formulated methods of research as an essential supplement to the always useful but never quite trustworthy method of field and clinical observations.

The results of Dr. Hamilton's work are here offered to physicians, social workers and lay readers who may share with him a hope that in time psychopathologic research will make possible the construction of textbooks devoted to systematic accounts of the human personality as an integration of adjustive functions, each of which may be regarded as playing a recognizable role in the determination of total response to particular types of situations.

PHYSIOLOGICAL CHEMISTRY—C. J. V. Pettibone, Ph.D., University of Minnesota. Third edition. Price $3.25. C. V. Mosby Company, St. Louis, Mo.

MEDICAL CLINICS OF NORTH AMERICA—(New York numberXSeptember, 1925). Issued serially, one number every other month). Vol. IX, No. II. Octavo of 271 pp., 24 illustrations. Per clinic year, (July 1925 to May 1926) paper, $12; cloth, $16 net. W. B. Saunders Company, Philadelphia, Pa.

An excellent number.

TEXTBOOK OF ORTHOPEDIC SURGERY—For Students of Medicine, by James Warren Sever, M. D., Assistant Orthopedic Surgeon, Children's Hospital, Boston. Instructor in Orthopedic Surgery, Harvard Medical School, Etc. Price $4.50. The MacMillan Company, New York.

Received:—

THE ART OF MEDICAL TREATMENT—By Francis W. Palfrey, M. D., Visiting Physicians, Boston City Hospital; Instructor in Medicine, Harvard University. Octavo of 463 pp. Cloth, $4.50 net. The W. B. Saunders Company, Philadelphia, Pa.

A manual that might be of value as a quick refernce with reliable suggestions for suitable treatment methods.

DEVELOPMENT OF OUR KNOWLEDGE OF TUBERCULOSIS—L. F. Flick, M. D., 738 Pine St., Philadelphia. Price $7.50.

A concise review, discussion and summary of tuberculosis.

FEEDING AND THE NUTRITIONAL DISORDERS IN INFANCY AND CHILDHOOD—Julius H. Hess, M. D. 4th Edition. F. A. Davis Company, Philadelphia. Price $4.50.

A splendid, useful text whose merit is attested by this fourth edition. It places in the hands of teachers and students an excellent guide for infant feeding and care of nutritional disorders. It is well illustrated and cites instructive case histories. Every doctor will find it a most helpful consultant,

HYPEREMESIS GRAVIDARUM: TREATMENT BY INTRAVENOUS INJECTIONS OF GLUCOSE AND CARBOHYDRATE FEEDINGS

Intravenous injection of glucose for hyperemesis gravidarum, first recommended in two previous communications by Paul Titus, Pittsburgh, and his co-workers (Journal A.M.A., Aug. 15, 1925), has now come to be an accepted method of treatment. Because of a diversity of opinions on such matters as the dose of the sugar, the preparations of glucose to use, the concentration of the solutions, and the frequency of the injections, detailed directions are outlined in this paper. The principal points to be observed are that: (1) the therapeutic dose of glucose for an adult of average size is from 50 to 75 gm., and smaller doses do not give the desired effect; (2) any preparation of glucose for intravenous administration must be chemically pure because reactions in the patient are usually traceable to impure or carelessly prepared solutions; (3) hypertonic solutions (preferably 25 per cent) act more promptly and favorably than weak solutions, and (4) single injections are safer than a continuous flow, but must be repeated from one to three times daily according to the condition and response of the patient. Favorable results are now reported in a total series of 328 cases of hyperemesis gravidarum treated by high carbohydrate feedings or intravenous injections of glucose. Therapeutic abortion was performed four times, and three of these patients died. Two of these cases were clinically to be classed as acute yellow atrophy of the liver. The basis for the treatment of hyperemesis gravidarum by glucose and other carbohydrates whether given by vein, by mouth, or by bowel is to be found in the physiologic assumption that there is a carbohydrate deficiency in the maternal organism. This deficiency occurs as the result of an unusual demand for carbohydrates made by the growing fetus, and a diminished carbohydrate intake in the patient's diet, thus being a combination of indirect and a direct starvation. Pregnancy toxemia and starvation are not identical, for additional factors undoubtedly are involved. Every pregnant woman is a potential subject for toxemia, and if by a starvation of carbohydrates the liver is depleted of its reserve glycogen, its detoxicating action is thereby impaired, and a more profound effect from toxins from whatever source is thus made possible. Carbohydrate deficiency in pregnancy toxemia probably is the cause of part of the central necrosis of the liver lobules seen in fatal cases, its action being the same as that by which simple starvation produces similar necrosis. The action of glucose is propably twofold: (1) a direct liver-sparing effect, and (2) a stimulation of the storage properties of the liver cells, which is practically identical with regeneration and repair. Ampules of concentrated glucose solution which may be diluted as required are now being prepared by reliable pharmaceutic firms, and may be obtained for emergency use or when laboratory facilities are not available. A limited but fairly comprehensive experience with the combined use of insulin and glucose injected intravenously has led to the belief that this is of no clinical advantage. Moreover, there is evidence to show that insulin actually causes glycogen stores to become depleted, by its demand for glucose to be oxidized and otherwise metabolized. In toxemia of pregnancy, therefore, in which storage in the liver and not combustion of the injected sugar is the desired result, the simultaneous administration of insulin is contraindicated.

The Journal
OF THE
Michigan State Medical Society
ISSUED MONTHLY UNDER THE DIRECTION OF THE COUNCIL
Vol. XXIV. GRAND RAPIDS, MICH., DECEMBER, 1925 No. 12

Original Articles

THE THERAPEUTIC ANATOMY OF LOBAR PNEUMONIA

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The purpose of the following discussion is to bring to the attention of the practicing physician the modern conceptions of the anatomy and physiology of the lungs and point out how these are related to the phenomena of lobar pneumonia and their significance in the therapeutics of the condition.

The pathology of pneumonia is well known in so far as anatomical changes are concerned, but pathology has contributed very little towards a rational therapeutics. The morbid anatomy of pneumonia is of vastly more interest at the post mortem table than at the bedside.

The principal attempts which have been made in finding a remedy for pneumonia have been along bacteriological lines. Some success has been achieved as a result of these efforts.

It is a well recognized fact that lobar pneumonia is a self-limited disease. This being the case, those measures which are palliative should find a ready application to this condition because such measures are directed towards alterations in physiological processes. For this reason let us inquire into the physiology of the condition. Probably in no disease is so little attention given to the physiology of the structures involved as in pneumonia. Yet the whole picture of lobar pneumonia, both the clinical, and the post-mortem anatomy, are due to the pathological physiology which results from the accumulation of bacteria and toxins in the respiratory tissues.

So that in order to obtain the true significance of the condition, an understanding of the lung function is necessary. In order to obtain a complete picture of lung function we must have a knowledge of the physiological anatomy of the organ.

In treatises on pneumonia one sees a very small amount of space devoted to either the anatomy or the physiology of the normal or diseased lung, and usually what is said is not true. There is a good reason for this. Only in recent years, due to the efforts of such men as Dr. Miller of the University of Wisconsin, Dr. Dunham of the University of Cincinnati, M. Meyer, Einthoven, and others, have we come to the true understanding of lung anatomy. As to lung physiology we know very little. The physiologists talk a great deal about the "dead space," "respiratory quotient," "the exchange of oxygen and carbon dioxide," "tidal air," "residual air," "diffusion of gases," etc. The clinicians prattle much about basal metabolism, yet the physiological mechanisms of the lung which are of practical clinical significance remain unmentioned.

So as a basis for our views upon the pathological physiology of lobar pneumonia let us note very briefly the anatomy of the lung, and then indicate the physiological significance of this mechanism and apply it to the symptoms and treatment of pneumonia.

We shall concern ourselves only with the minute structure assuming that the reader is familiar with the grosser structure. The lung functionally consists of two parts.

(a) A tubular system for the passage of inspired and expired air, and provisions for warming and moistening the air; and (b) A respiratory mechanism where the exchange of oxygen and carbondioxide between the air and blood occurs.

The tubes are rigid walled structures consisting of a series of rings or segments of cartilage alternating with bands of connective tissue. This arrangement results in a system of tubes which are non-collapsible, but yet are capable of motility.

It is also to be noted that at no place do the cartilages completely envelope the tubes. The intervals between the cartilaginous segments are bridged by connective tissue and muscle and in the trachea and larger bronchi the muscle fibres run both longitudinally (trachealis muscle) and circularily. By this mechanism the tubes cannot only be narrowed (constricted) in their transverse diameter, but also shortened, a mechanism similar to the musculature of the gastro-intestinal tract from which the lung is embryologically derived. Haldane calls atten-

tion to variations in capacity ranging from 150 c.c to 600 c.c. under varying conditions.

In the outer layer of the mucous membrane there is a well developed muscularis mucosae formed of circular fibres, and as the smaller terminal air tubes are reached this musculature becomes relatively much better developed.

What have we, therefore? Simply this, a system of branching tubes, similar in structure to the intestinal tract, enclosed in non-collapsible cartilaginous tubes. This muscular inner tube can contract and relax, constrict and shorten, just as does the intestine, and this it does in a continuous rhythmic manner. It is an automatic transport system regulated by a nerve mechanism exactly similar to that of the alimentary tract, as described by Keith.

It is also to be remembered that glands are found only in this part of the tract. There are no glands in the respiratory portion of the lung. The significance of this fact will be pointed out later. The above statements relate only to the air passages.

Now let us note the anatomy of the respiratory portion of the lungs, the so-called anatomical or respiratory lung unit. This begins at the termination of the non-respiratory bronchioles which open into the respiratory ducts (bronchiolus respiratorius). The diameter of these ducts is .5 mm. or less. The epithelium rests upon the fibro-muscular coat. There is no cartilage. The epithelial cells are low columnar, sometimes ciliated, becoming the low, flat celled type and terminating in flat non-nuceated plates —typical respiratory epithelium. There are no glands.

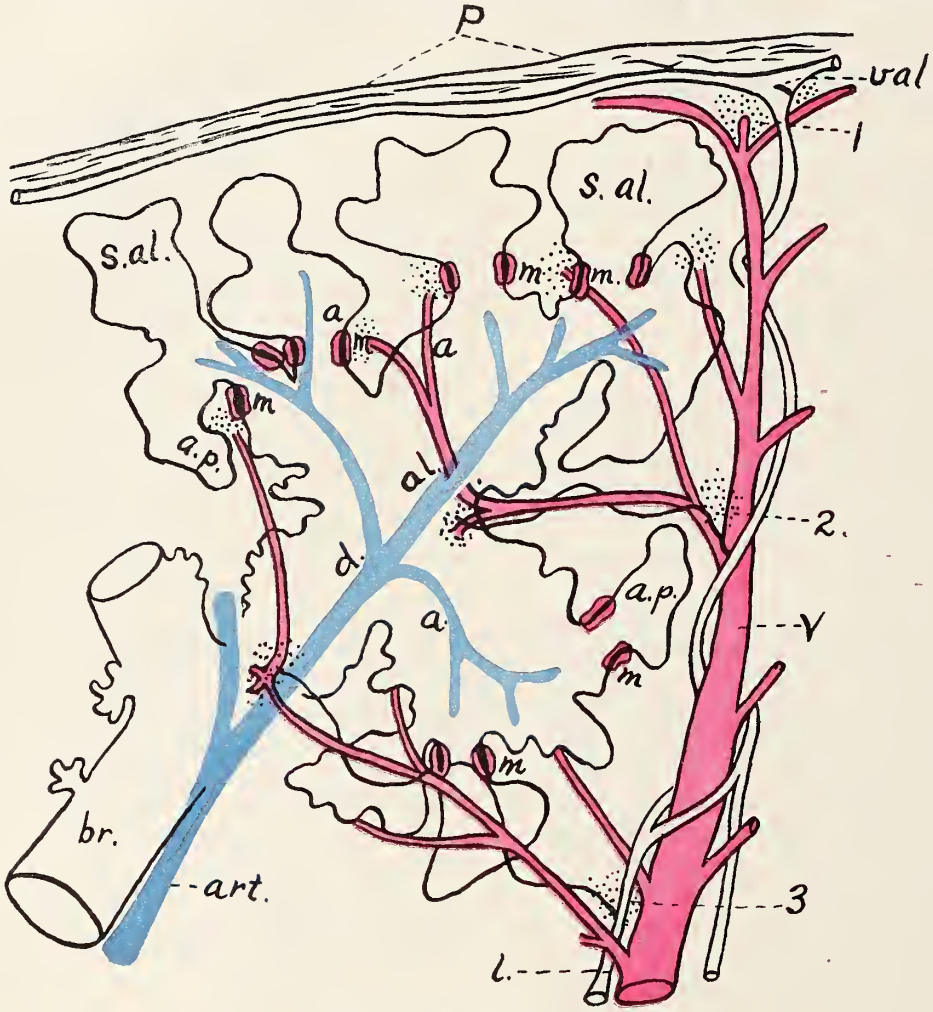

Figure 1—*Modified from Miller*

br-R—Bronchiolus respiratories
d-al—ductus alveoloris
a—atria
al-s—alveolar sac
al—alveolus or air cell
s—sphincter

The respiratory bronchioles terminate by branching into alveolar ducts. The alveolar ducts terminate in a variable number of atria. These in turn bear the alveolar sacs and the sacs have many alveoli which are in contact with the blood capillaries.

It is around the alveolar sacs and alveoli that the blood circulates and from these structures the oxygen passes from the air to the blood and the carbon dioxide passes from the blood into the air. Structurally the air ducts and sacs consist of *elastic connective* tissue and epithelial

cells. The circular muscle fibres terminate at the point at which the duct passes into the atria and there the muscle fibres form a *sphincter*.

The blood circulates through a system of capillaries around the air cells and the blood is separated from the air in the alveoli by a single layer of epithelial cells which line the air cells and a slight amount of fibro-elastic connective tissue which supports these cells, and by the endothelial cells of the capillaries. So that between the blood and the air are two thin flat epithelial cells and a negligible amount of connective tissue.

This gives us, therefore, a mass of bulb-like structures (alveolar sacs) with elastic walls. The opening in the bulbs are guarded by a sphintcric muscular mechanism. How does it work? When the chest expands, the sphincters relax, the air as it rushes in, distends the elastic sacs. At the end of respiration, by virtue of their elasticity, the sacs expel the air, the sphincters close and lung is at rest. This is an automatic mechanism. It is controlled and correlated with the peristaltic transport mechanism of the air tubes. The vagus nerve causes contraction (constriction) of the tubes

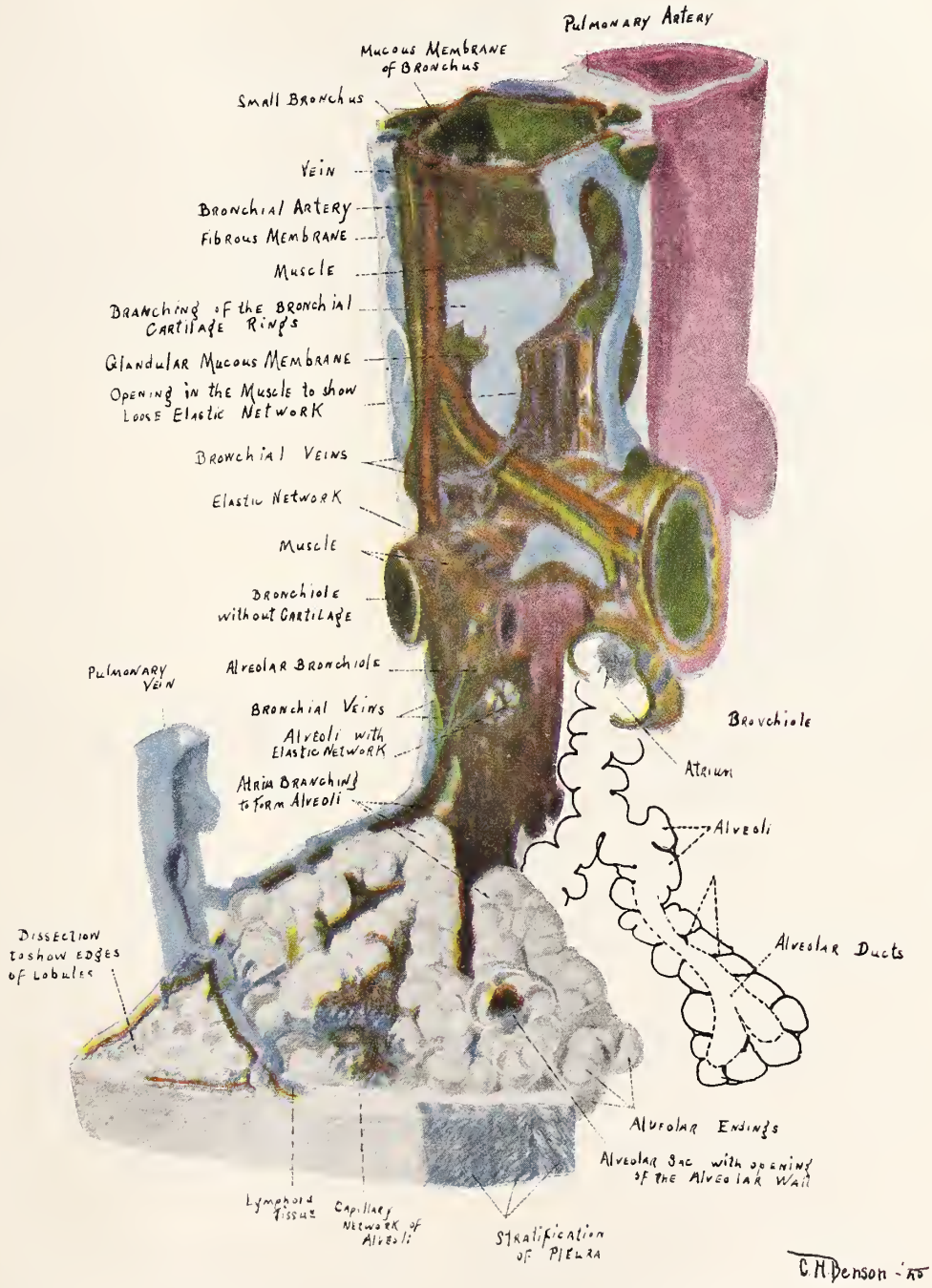

Figure 3—*The above is an illustration of the detailed anatomy of the lung according to Hermann Braus. Note the musculature distributed along the air passages and extending to the atria where it forms a sphincter.*

and closure of the sphincters. The sympathetic nerves cause a relaxation (dilatation) of the tubes and an opening of the sphincters. We shall point out the clinical significance of this mechanism later in the discussion.

As the blood vessels approach the respiratory portion of the lung (the lung unit or lobule) the artery follows the bronchioles and respiratory ducts. The veins originate at the point at which the alveolar ducts terminate in the atria. From there the contributory venules pass to the interlobular septa where they unite and reach the bronchioles in the tubular portion of the lung on the side of the bronchiole opposite the artery.

Around each atrium is a more or less dense mass of lymphoid tissue. It is here that the lymph vessels take origin and pass in two directions.

(a) One set courses with the blood vessels to the root of the lung following the course of the veins in the interlobular septa. (b) The others pass in the septa to the surface of the lung to the nodes of the hilus. The vessels which pass to the pleura contain a valve just where they empty into the pleural vessels. This valve permits the flow of the lymph from the parenchyma of the lung into the pleural vessels, but prevents the flow of the lymph from the pleural vessels into the lung substance. The clinical significance of this fact will be pointed out later.

Now to apply the above facts to the condition encountered in lobar pneumonia.

In pneumonia the physiological manifestations are:

1. Red cheek on side of involved lung—vaso-dilation.
2. Dry parched lips—impaired secretion.
3. Rapid respiration—poor aeration.
4. Contracted chest—spastic muscles and pain.
5. Diminished lung excursion—spasm.
6. Shallow respiration on affected side—pain and spasm.
7. Rapid, bounding pulse—acute infection.
8. Gastro-intestinal symptoms—toxemia.
9. Increase in rate of heart.

The pathological or anatomical picture shows a filling of the air cells, air sacs and alveolar ducts—congestion. At first red blood elements are present (red hepatization), later gray hepatization, crisis, resolution, or resolution by lysis.

What is the cause of these phenomena? The exciting cause is bacterial—an acute infection. How does an acute infection affect the lung? Let us see how it affects other parts of the body which are anatomically and functionally similar to the lung.

What happens in acute appendicitis? The heart condition is similar to that found in pneumonia. There is a spasm or disturbance of the peristallic mechanism of the intestine. There is congestion, hypo-stasis of the blood, and an accumulation of bacterial products, blood exudates, etc., in the appendix. How would you regard the prognosis if the peristallic action of the appendix and intestine could be kept going, the circulation could be kept moving and the waste products could be carried away? Would you not consider the prognosis good? Does not an acute infection always result in a spasm by deranging the neuro-muscular mechanism involved? This is accounted for because the vagus nerve which produces the spasm ends in intrinsic visceral gnaglia. The sympathetic ganglia are far removed from the source of infection and are not, therefore, irritated. See Figure 2.

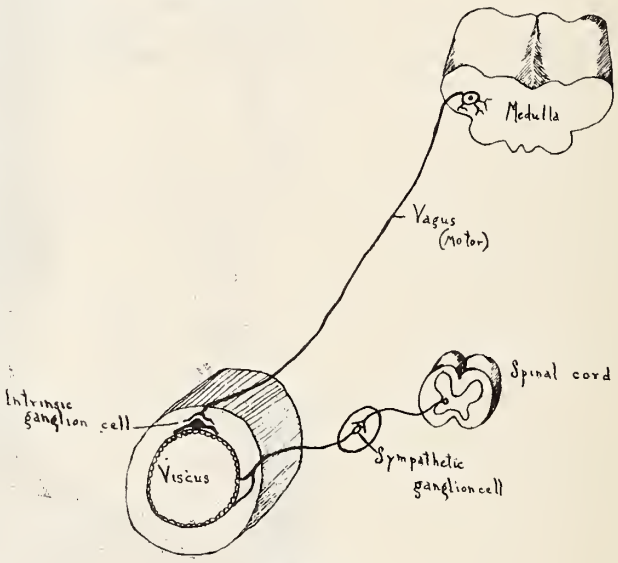

Figure 2

Now let us apply this condition to the lung. The bacterial irritation, whether from toxins or bacterial activity, result in excessive stimuli passing to the intrinsic vagal ganglia. The sympathetic ganglia, being far removed, are not affected. Thus the equilibrium between the vagus and sympathetic is disturbed.

The peristallic mechanism, therefore, becomes paralized or spastic. The sphincters of the atria contract. What is the effect? First, the respiratory exchange is impaired. The condition found in asthma results. There is difficulty in breathing. What effect does this have upon the circulation? A very important factor in the flow of venous blood is muscular contraction. This is an essential physiological fact. The rhythmic contraction of the intestinal musculature forces the blood into the veins. So in the lung the rhythmic contraction and relaxation of the musculature facilitates the blood flow. In other words, it serves the function of a "massage" to the vessels.

When this mechanism is paralized or becomes spastic the flow of blood is impeded,

hypo-stasis and congestion results. Transudation occurs. The alveoli fill with blood elements which mix with the bacteria and their products. The elastic alveolar sacs and air cells distend. They cannot empty because their sphincters are closed.

The heart, having lost the assistance of the "massage" effect, has to force the blood through the inactive lung. This results in increased rate and force of the heart in order to overcome the inertia of an inactive lung. This is the stage of red hepatization. The condition persists and more or less degeneration (liquifaction necrosis) occurs, bacterial activity decreases and the stage of gray hepatization results. Finally, due to the cessation of the irritation, the spasm passes off. The peristaltic mechanism resumes its activity, the sphincters relax, by virtue of their elasticity the alveolar sacs and cells empty their contents. The peristaltic mechanism delivers this to the mouth and the lungs are thus cleared. The circulation is improved, temperature falls, resolution has set in. The passing off of the spasm is the crisis. If the spasm does not pass off from all the involved musculature at the same time resolution is delayed, and results by lysis. If secondary infection results, or some other irritative factor intervenes, relapses may occur.

Pleurisy may result because infective material can readily pass to the pleura through the lymph stream. If the tuberculosis bacillus should enter the lymphoid tissue around the atria may become involved—this is the point at which tuberculosis attacks the lung.

If our conclusions as to the physiological condition are correct what therapeutic measures are indicated? Measures to provide:

(a) Oxygen, because the respiratory portion of the lung is impaired.

(b) To relieve the spastic condition and restore activity to the peristaltic mechanism.

(c) Counteract the bacteria.

It is generally observed that cool or even cold fresh air is of value in lobar pneumonia, but in bronchial pneumonia warm, fresh, moist air is better suited to the condition. What is the physiological explanation of the difference?

The air tubes warm and moisten the air. These are not involved in lobar pneumonia. The secretory portion of the tubes are unaffected. But in bronchial pneumonia the tubes which warm and moisten the air are affected, so warmth and moisture should be provided for.

To relieve the spasm, drugs should be selected with this end in view. The one most familiar to us which may relieve the spasm is atropine. The drug inhibits the vagus. Since the vagus irritation produces the spasm, inhibition of the vagus relieves it, restores the peristaltic mechanism, relieves the heart from the depressor effect of the vagus, and thus the rate and force of the heart increases. It may be objected that speeding up of the heart is dangerous. The cause of heart failure in pneumonia has been shown to be due to deficient aereation of the blood and not from overwork or toxemia. Belladonnae is recommended by some just at the time of expected crisis. The idea being that it lessens secretion of the air cells and ducts, but these do not secrete because they do not possess any glands, so this idea is erroneous, but it does assist in relaxing the spastic musculature and thereby facilitates resolution. So why not attempt to prevent the spasm, or relieve it by similar measures earlier in the disease?

Diathermy, if efficacious, acts by relaxing the bronchial musculature. Some favorable reports have been made as the result of diathermic treatment. The experimental work with this method of treatment indicates that the effect is to raise the temperature of the tissues under its influence. It is an old and well recognized fact in therapeutics that heat is a sedative and is often made use of in order to relax a muscle spasm, e. g. the "Sitz bath." So that diathermic effects, if beneficial, can be explained by the fact that it relaxes the sphincters of the atria which we have described above.

Another part of the physiological reaction in pneumonia is evidenced by changes in the blood. This is a phase of the picture often overlooked by the pathologist, who too often sees only the morbid anatomy, yet the blood condition is a very important element in the physiological pathology.

This phase of the condition can be influenced by the drug mercury. One Japanese worker and one American working in Japan and an English physician first demonstrated the effect of the salts of mercury on the blood. The effect of these salts is to increase the leucocytes and especially the phagocytic leucocytes. This is probably the secret of the marked effect of calomel in acute infections, whereas the cathartic effect is a side effect. Workers at the Rockefeller Institute have confirmed the conclusions of the Japanese and English investigators and some months ago brought out a mercurial salt intended for intravenous administration for the purpose of increasing the phagocytic leucocytes.

Quinine will increase leccocytosis, but it is a protoplasmic poison. That is why it kills the malarial parasite, and while it increases the production of leucocytes, it requires large doses to do it and it also inhibits leucocytic activity. However, it has been suggested by Dr. D. E. Jackson that hydrochinone, a drug pharmacologically similar to quinine, stimulates visceral muscle through its effect upon the suprarenals. This would relieve the bronchial spasm by acting on the sympathetic.

A chemical study of the blood in pneumonia gives us an insight into the oxygen condition, and internal respiration. The table below, which was prepared as a summary from the work of Stadie, gives us some idea of the oxygen state and its significance in pneumonia.

TABLE
UNSATURATION OF OXYGEN

	Normal	Non-fatal	Pneumonia Cyanosis	Fatal	Range
Arterial ..	5%	13.9%	24.7%	32%	0-68.2%
Venous ...	26.8%	36.3%	44.5%	57%	14.4-85.5%

Unsaturation of over 20 per cent usually means a fatal termination.

The perusal of the above facts clearly indicate the need of oxygen in the course of the disease.

CONCLUSION

We have attempted to show that:

(1) The lung possesses a peristaltic mechanism.

(2) The lung circulation is facilitated by this mechanism due to its "massage" effect.

(3) The respiratory sacs are guarded by sphincters and these sacs are involved in pneumonia, and become spastic.

(4) An irritation of the mucous membrane by bacteria and toxins can produce a spasm of the sphincters and peristaltic mechanism.

(5) This paralysis, by impeding the circulation, respiration, etc., accounts for the pathological and physiological condition in pneumonia.

(6) The sudden passing of the spasm is marked by the crisis, and the resumption of peristaltic activity constitutes resolution.

(7) Belladonna compounds should be used to relieve the spasm and mercurial salts to combat the bacteria by increasing the phagocytic leucocytes.

(8) That if diathermy proves to be of value that it will be because heat has the therapeutic effect of acting as a sedative and relaxing muscle spasms.

(9) Cold, fresh air is well borne and beneficial in supplying oxygen, and the need of oxygen can be determined by a chemical examination of the blood.

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"THE KIDNEY IN ITS RELATION TO DISEASE"

THE CLASSIFICATION, RECOGNITION, AND TREATMENT OF CHRONIC NEPHRITIS

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It is now nearly one hundred years since Richard Bright published his "Rep rts of Medical Cases" (1827), containing his original description of essential nephritis and the epoch-making distinction between cardiac and renal dropsy. Although Saliceto as far back as 1476 had pointed out the association of dropsy, scanty urine and hardened kidneys, and Wells in 1811 had shown the relationship between dropsy and albuminous urine, Bright was the first to correlate albuminuria, dropsy, cardiac hypertrophy and hardened kidneys, and to describe the disease entity which has since borne his name.

If Bright were among us today he doubtless, could still, with his remarkable powers of clinical observation and by heating a test tube of urine, correctly diagnose the disease that now bears his name, but he would probably be much mystified by our discussion of renal casts, infections, kidney functional tests or blood chemistry. It must be recalled that in Bright's time microscopes were not in general use, infections played no role in medical discussions, since bacteria were undiscovered, and that Liebig, one of the fathers of physiological chemistry, had just established his laboratory in Giessen.

As we look back over the history of diseases, we often see a first clear description of a certain disease entity, and then attempts to further differentiate and classify the condition. This century old attempt to classify nephritis is a very interesting but also a very long and somewhat confusing chapter,

which I will attempt to sketch in its barest outlines, only.

The attempt to classify nephritis began first, as was natural, with the pathological anatomy of the kidney and only a few years after the publication of Bright's paper we find Rayer describing four types of chronic nephritis. For many years we see the most intense study of the kidneys in nephritis, but in spite of this immense amount of work Rindfleisch in 1867, forty years after Bright's paper, declared that "the pathological anatomy of the kidney is certainly the subject that has stimulated the most investigation and yet today it is the least complete chapter of the whole work."

The best known classification which has survived this era of intensive pathological study is that of Wilks, who described "the large, white kidney with considerable dropsy" and "the hard, contracted kidney, often destitute of symptoms." This classification later adopted by Virchow, who rechristened these types "parenchymatous nephritis" and "interstitial nephritis" is, as Stevens remarks, "a simple one and still has its advocates" but "it unfortunately has failed to harmonize the clinical and anatomical findings."

A very great problem which troubled the pathological anatomists from the beginning has been to separate the inflammatory type of kidney lesion from the degenerative type. Many excellent pathologists have protested from time to time against diagnosing a kidney "chronic nephritis" when a careful study of sections of that kidney showed the changes to be largely degenerative in nature. This point of view was stressed particularly by Frederich Muller who suggested in 1905 that the term "nephritis" be restricted to true inflammatory lesions of the kidneys while he proposed the term "nephrosis" to describe the degenerative lesions.

This differentiation of Friedrich Muller's has steadily gained ground. The remarks of Munk made in the 1925 edition of his work on "Diseases of the Kidney" are of interest. "We distinguish," he says, "most sharply between the degenerative form of kidney disease and the inflammatory form, because it makes the clinical pathology of the kidney not more complex, but on the contrary, much simpler and clearer."

Much information of value has been obtained in recent years as the result of studies on experimental nephritis and on renal functional tests. Ambitious attempts have been made to differentiate or even classify renal disease on the basis of the kidneys' response to the injection of various substances. Such work has been quite fascinating in many ways, but no classifications based upon it have, as yet, stood the test of later observations.

One lesson particularly that has been learned from the studies on experimental nephritis is the selectivity with which certain chemicals strike definite parts of the kidneys. This observation agrees with those of the pathologist who has observed a similar tendency in disease and has spoken of a tubular as contrasted with a glomerular nephritis. A very well known classification, that of Volhart and Fahr, is based partly upon this differentiation between glomerular and tubular pathology. This classification of Volhart and Fahr is in many respects a splendid one, but is, like Aschoff's, just a bit too complicated for the clinician to carry on the tip of his tongue.

A very distinct contribution to the simplification of classification initiated by Freidrich Muller was made by Lohlein in 1910, who asserted that only one form of kidney disease deserves the name "nephritis" and that is diffuse glomerulo-nephritis. Glomerulo-nephritis, according to him, represents not only an anatomic, but also an etiologic entity, and is caused by bacterial toxins, most commonly those of the streptococcus. Ophuls, one of the most careful students of nephritis, agrees in the main with the conclusions of Lohlein and has emphasized for a decade the role of the streptococcus in the production of chronic nephritis.

A review of the classifications of nephritis during the past fifty years shows increasing clearness, simplicity and a closer approach to a classification based on etiology. A comparatively simple classification which is accepted by most students of renal diseases, would group nephritis into the following groups:

1. Nephrosis—degenerative Bright's disease.
2. Arteriosclerotic kidney disease.
3. Glomerulo-nephritis.

This classification is workable, easily remembered and is based on etiological and therapeutic considerations.

The first great group of cases that offer difficulties in the diagnosis of chronic nephritis are the cases of that very common and widespread affection to which the term "essential hypertension" has been applied. The recognition of this disease is distinctly an achievement of the present generation—the work of Albutt, Huchard, Janeway, Mosenthal and others. Before their careful studies were made, most cases with high blood pressure were diagnosed as chronic nephritis.

Essential hypertension is easily the com-

monest cause of elevation in blood pressure. In our experience it is ten times as frequent as high blood pressure, due to a chronic nephritis.

The reports of pathological findings in such patients are extremely variable, some observers finding kidneys that are practically normal while others stress the presence of fibrosis of the renal arterioles—the so-called arteriolosclerosis. Fishberg, in a very important contribution to this subject found arteriolosclerosis of the kidney vessels in every one of seventy-two cases of essential hypertension coming to necropsy, although only five had renal insufficiency. He emphasizes that these changes are also extremely common in the vessels of other organs and states that "the anatomic changes in the kidney cannot be reconciled with the theory that essential hypertension is due to a disorder of renal function."

The cause of essential hypertension is still a matter for dispute and speculation. There is some evidence that accumulation of some product of metabolism having a pressure effect, such as guanidine, may be concerned. Whatever the cause, there is an increasing belief among both clinicians and pathologists that the hypertension is primary and the thickening of the arterioles is the result of this increased strain on the vascular system.

The diagnosis of these patients with essential hypertension does not as a rule offer great difficulty. The blood pressure is often very much higher than in chronic nephritis and may show much greater daily fluctuations. The heart is often markedly enlarged and the cardiac symptoms much more pronounced than in chronic nephritis. The urine may contain albumin and casts, but a study of the functional ability of the kidney shows it to be unimpaired and the blood urea, non-protein nitrogen and creatinine are usually normal. The output of urine in early cases is usually normal and it has a good specific gravity.

This disease, essential hypertension, as it advances, attacks particularly the heart and the brain, the victims usually die from cardiac failure or cerebral hemorrhage and not from kidney insufficiency.

The nephroses or degenerative kidney diseases are seen most commonly in the course of an infectious disease such as typhoid, diphtheria, malaria, pneumonia and influenza. They occur also as the result of some focal infection, such as an abscessed tooth, or an infection of the sinuses. Many of us recall patients with a persistent albuminuria, accompanied by urinary casts, which cleared up completely following the removal of infected teeth or the drainage of an infected antrum.

Another well known group of nephroses are those following poisoning with such substances as bichloride of mercury, phenol, chromic acid, lead and arsenic, particularly in the form of salvarsan. It is noteworthy that the pathological changes in such kidneys are largely in the tubular epithelium and that they often proceed without any marked elevation in blood pressure. This has led many observers to the belief that elevation in blood pressure is usually an indication of involvement of the kidney glomerules while a pure tubular process may become quite marked without changes in the blood pressure. The diagnosis of a nephrosis due to poisoning by the above substances is usually apparent from the clinical history and in cases caused by the salts of heavy metals, such as mercury or salvarsan, good therapeutic results are often obtained with sodium thiosulphate as advocated by Dennie and McBride.

One type of nephrosis, the lipoid, often called in this country Epstein's nephrosis, forms such a distinctive clinical and pathological picture as to justify its consideration as a distinct disease entity. Patients suffering from this condition present a marked tendency to edema, with a high grade albuminuria, the kidney functional tests may be normal but further study shows that their blood serum contains more globulin than albumin, the blood contains very large amounts of cholesterol and their basal metabolic rate is much below normal.

This distinctive triad, inversion of the normal ratio of serum albumin to serum globulin, hypercholesterinemia and low metabolic rate, is usually sufficient for the diagnosis. Epstein has reported good results in the treatment of these patients with thyroid extract and has suggested that this condition is a disease of metabolism. In a patient whom we recently studied the presence of the striking lipoid degeneration in the liver as well as in the kidneys, is suggestive confirmatory evidence that we are dealing with a metabolic disease.

Other types of nephrosis which should be mentioned are the syphilitic nephrosis and the kidney of pregnancy. Syphilis, according to Munk, may produce a typical lipoid nephrosis which may later go on to a contracted kidney.

The second great group of nephropathies, the arteriosclerotic kidney is, it must be emphasized, only one feature of a generalized vascular disease—general arteriosclerosis. In both the diagnosis and the treatment we must remember that we are dealing with a

general arteriosclerosis in which the kidney involvement is only one aspect of the disease.

An interesting contribution to the history of arteriosclerosis is that of Ruffer, who reported in 1911 the results of his studies on arterial lesions which are very common in Egyptian mummies and he remarks that the etiology of arteriosclerosis "three thousand years ago is as obscure as it is in modern people." Ruffer points out that the people in ancient Egypt did not use tobacco, that they did not suffer from syphilis, that they did not live on a high meat diet, but on the contrary subsisted mainly on a vegetable diet, and finally that they were not habitual drunkards. In regard to the importance of alcohol in the etiology of arteriosclerosis he adds that "during the Mussulman pilgrimage, I have made over eight hundred postmortem examinations of people who had certainly never touched alcohol in their lives, and I have found that disease of the arteries is certainly as common and occurs as early in total abstainers as in people who take alcohol regularly."

If the above views from the standpoint of the etiology of arteriosclerosis may seem pessimistic, it is at least comforting to reflect that many patients may have a high grade of arteriosclerosis and yet live for years in comparative comfort and health. Others, however, develop early a high blood pressure and later die in uremia. The difference between these two groups is apparently a difference in the involvement of the arterial system. One patient has his arterial lesions mainly in the larger vessels, while the other shows early an intense involvement of the renal vessels.

We have unfortunately no means at hand by which we can check the development of arteriosclerosis in the kidneys. We can, however, spare these diseased kidneys by ordering our patients to ease up on their mental and physical activities, to avoid excess in eating, especially of protein and salt, to keep their bowels open and to keep their skin in good condition by daily tepid baths. Such patients should also be warned against the excessive use of tobacco and tea or coffee are best omitted from the diet.

While in many elderly patients arteriosclerosis represents perhaps only a general expression of senility, a sign that the vascular machinery is wearing out, there is a group of patients, much larger than one might suppose, who have at forty, arteries that should belong to a man of eighty. Perhaps as Osler expressed it, Nature has endowed these individuals with bad tubing, and such a tendency seems to run in certain families. However, while we are increasing the life span of man it may not be too optimistic to hope that we may in time lengthen the life of his arteries. Such work as Newburgh's, pointing out the damage that high protein diets causes to the vascular system is very suggestive. Let us hope that further study of the dietary errors and toxic factors in patients with such precocious arterial senility may give these patients as hopeful a future as the diabetic has today.

The third great group of nephropathies—diffuse glomerulo-nephritis—is a true inflammatory lesion of the kidneys. The acute types are usually frankly infectious, following commonly acute tonsillitis, impetigo, various skin or subcutaneous infections, abscessed teeth or scarlet fever. In the majority of cases recognition of the primary source of infection with appropriate treatment is followed by gradual recovery. In other cases the primary inflammation subsides but does not disappear and continues throughout months or years with ever increasing destruction of the kidney tissue until the picture of a chronic diffuse glomerulo-nephritis results.

The etiologic relationship of the streptococcus to this type of nephritis is very close, yet attempts to produce the picture of a chronic diffuse glomerulo-nephritis in animals by the injection of cultures of streptococci have met only with partial success. One point in connection with such experimental work, however, has not been sufficiently stressed and that is the specificity of certain strains of streptococci for the renal tissue. Two strains of streptococci with identical morphological and cultural characteristics may behave quite differently on intravenous injection, one producing kidney lesions while the other causes no damage to the kidney.

In the diagnosis of chronic diffuse glomerulo-nephritis, particularly in the early stages, the most important and often neglected procedure is a careful study of the urine. In the later stages when two-thirds or more of the secreting kidney tissue is destroyed we begin to note elevation of the blood pressure, increase in the blood urea and creatinine and a poor response to such kidney functional tests as the phenolsulphonephthalein test and the creatinine test.

Addis has recently emphasized the importance of studying the urine in these patients and has shown that we may not only diagnose but also classify kidney disease by a study of the urine. He points out the constant presence of red cells in the urine of patients suffering from glomerulonephritis and suggests the term hemorrhagic nephritis

to differentiate this type from the degenerative and arteriosclerotic types. He has also called attention to the grave prognostic import of large broad casts in the urine.

Chronic glomerulonephritis shows from time to time acute or subacute exacerbations, characterized by the appearance of slight fever, a diminution in the output of urine and the appearance of showers of casts and red blood cells in the urine. During such periods the patient should be put at complete rest in bed, placed on a "milk and flour" diet as the Germans express it, the fluid intake restricted to one and one-half liters, cartharsis instituted and the patient protected from chilling. Diuretics are of doubtful value but a mild alkaline diuretic may be of aid at times.

With the institution of these measures, the physician has not done his full duty unless he has made a most careful search for possible etiological factors, infectious toxic or dietary, and sought to remove them. For in the later stages of glomerulonephritis, thereapy is unfortunately of little avail. We may stimulate the flagging heart, we may remove serious effusions, we may make the sufferer more comfortable, but he is doomed and we know it.

Renal functional tests are of great value in differentiating chronic nephritis from other conditions associated with arterial hypertension, and they aid materially in prognosis. But let us by no means fail to study the urine with the greatest care. A careful estimation of the urinary output, its specific gravity, a microscopic study of the urinary sediment will usually give us the information we need most months or even years before our renal functional tests are of aid.

In conclusion, the simple classification of Bright's disease in three types—nephroses or degenerative, arteriosclerotic and glomerulonephritis or hemorrhagic, is one that meets our usual clinical needs. In the study of our patients our main reliance should still be the measuring glass, the urinometer, the test tube and the microscope.

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ACUTE NEPHRITIS IN CHILDREN AND THE RELATION OF CHILDHOOD AFFECTIONS TO THE KIDNEY IN ADULT LIFE*

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There are certain conditions which can very well be studied in childhood because during this age period they exist in their simplest form. The various forms of nephritis are examples of such conditions. I shall use the same classification adopted by the previous speaker, and shall mention particularly two forms of nephritis as they occur during childhood and which may lead to the third form in adult life. These two forms are the "tubular nephritis" or "nephrosis," (sometimes called parenchymatous nephritis), and the "glomerular" or "hemorrhagic" nephritis.

The term "nephritis" is, in a way, a misnomer. The conditions which we refer to as "nephritis" are essentially general diseases in which the kidney is particularly affected, but is not the only organ involved.

We will consider first the tubular nephritis or "nephrosis." In this condition, the onset of symptoms is usually insidious. There is a gradual increase in edema which may ultimately become extreme. The urine is scanty, concentrated, often highly colored and contains very large amounts of albumin and numerous casts. It is, however, never "smoky" because it does not contain blood. This latter is an important differential point between tubular nephritis and glomerular or hemorrhagic nephritis.

In tubular nephritis there is little or no impairment of renal function. Phenolsulphonphthalein excretion is normal. There is no retention of non-protein-nitrogen in the blood and no retention of chlorides. The blood chlorides, indeed, are likely to be lower than normal. There is no increase in the blood pressure and no change in the

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eye grounds. Acidosis does not occur and there are no changes in the systemic capillaries of the body such as we shall see are characteristic of other forms of nephritis. A secondary anemia rapidly develops and the proteins of the blood serum are diminished as well as the corpuscles.

The kidneys in this form of nephritis are large and white and there is an extensive degeneration of the cells of the renal tubules. There are no interstital changes nor involvement of the glomeruli, and no bacteria present. Changes in the kidney are such that complete regeneration may occur, provided the cause of the condition is removed.

You have all seen cases of this type,—"the large white patient with the large white kidney."

What is the cause of this condition? In childhood, the most frequent cause of this form of nephritis is infection. In the adult other toxemias may be the cause. In children, the staphylococcus is the most frequent infecting organism, and it has been our experience that the most frequent location of this infection is in the nasal accessory sinuses. It is our custom, on seeing a child with the symptoms described, to first of all examine the nose and throat and our search is usually rewarded by the finding of definite pus in one of the nasal accessory sinuses. The infection is most likely to be in the maxillary antra.

When such an infection is found and appropriately treated, the symptoms of nephritis, in most instances, rapidly disappear and do not return unless a reinfection occurs.

Staphylococcus infections elsewhere can lead to a similar picture. Osteomyelitis and certain staphylococcus skin infections are sometimes accompanied by this same form of nephritis.

It is of interest to know how the infection brings about the condition. Some very interesting observations on this point have been made by Dr. S. W. Clausen, a former associate of mine. Dr. Clausen found a peculiar substance present in the blood and urine of these patients at the time edema was present. The substance in question has a marked physico-chemical effect in that it alters the surface tension. This lowering of the surface tension of the blood can be determined readily by weighing a number of drops of serum. The drops are smaller and weigh less than the drops of normal serum. The same is true of the urine excreted by these patients.

Clausen isolated the substance in question from the urine and showed that it has the property of changing the permeability of both living and dead membranes. This phenomenon can be readily demonstrated in the case of a collodion sac. If such a sac is filled with hemoglobin solution and immersed in normal saline, no hemoglobin passes through, but if a small amount of the peculiar substance isolated from the urine of nephritic patients is applied to the colloidion membrane the hemoglobin can be seen to pour through into the surrounding solution. This is probably the explanation of the permeability of the kidney to albumin. A similar change in permeability of the cell walls throughout the body may well be a factor in producing the edema.

We know that the edema is not due to retention of either salts or water by the kidney. We have, in fact, seen cases where the edema occurred before there were any changes in the urine. The edema is due to retention of water by the tissues and if the water can once be released from the tissues the kidneys excrete it well.

When the focus of infection is cleared up, the peculiar surface active substance disappears from the blood and urine and at the same time the edema disappears. The edema is due to a general change throughout the body. The cells of the renal tubules are especially involved, possibly because the substance in question is excreted through the kidney in considerable concentration.

All methods of treatment of nephrosis fail unless there is recovery from the local infection. Regulation of the diet alone will not cure the disease. If salt and water are restricted the edema may be diminished, it is true, but the effect is purely symptomatic and no permanent good is accomplished. On the other hand, these patients may be given water ad libitum and still rapidly lose the edema provided the infectious cause is removed.

When the infection is present the administration of salt increases the edema and it is therefore usually desirable to restrict salt. Water usually need not be restricted unless the edema and ascites is so marked as to embarrass respiration. A high protein diet is indicated, children usually being given 2-3 gm. of protein per kilo of body weight per day. This amount of protein produces only good effects. Animal protein is of more value than vegetable protein as it is a better repair food. The patient's general nutrition must be kept up; he should be given green vegetables, cereals and the other articles included in a good general diet.

Sweating and catharsis remove no harmful substances and tend to weaken the patient.

Diuretics, particularly of the purin series, such as theobromin-sodio-salicylate (diuretin), are sometimes effective and lead to a disappearance of the edema and apparently do no harm in this form of nephritis. It is interesting to note in this connection that diuretin is the physico-chemical antidote to the peculiar toxic substance present. Diuretin raises the surface tension of the blood, whereas the other substance lowers the surface tension. It is possible that the action of diuretin is due to this effect and that it merely changes the physico-chemical equilibrium throughout the body, so that water is liberated, its action being general rather than a special one on the kidney.

Let us now consider the second type of nephritis which differs so greatly from the preceding form as to constitute an essentially different disease. This second form is also a general disease, dependent upon infection, but the changes in the body and prognosis and treatment are entirely different. The symptoms of glomerular or hemorrhagic nephritis begin abruptly and may be preceded by a febrile disturbance, frequently a sore throat. The patient appears acutely ill, is listless and there may be slight puffiness of the eyelids, but the edema is never of the severe degree observed in cases of nephrosis.

At the onset the urine may be temporarily suppressed, but on the other hand there may be profuse diuresis. After the first few days the volume of the urine is normal. The most striking characteristic of the urine in glomerular nephritis is its "smokiness" due to the presence of red blood cells. Albumin is present in but moderate amounts. There are casts, which are at first granular and later hyalin.

There is definite evidence of renal insufficiency. The non-protein-nitrogen, urea and chlorides of the blood are increased. Phthalein excretion is below normal. Uremic symptoms are often present, such symptoms being of less prognostic significance when occurring at the onset than when occurring later in the disease.

The blood pressure of these patients is invariably elevated at some stage of the disease and there are characteristic changes in the eye grounds.

Acidosis, accompanied by air hunger, is seen in the more severe cases.

The kidneys in this condition are large and red in the early stages of the disease. Later they are large and white with petechial hemorrhages. In cases of long duration the kidneys become definitely contracted. The capillaries in the renal glomeruli are congested and later sclerosed.

Not only are the capillaries of the kidney involved, but also the capillaries in other parts of the body. These capillary changes can be readily observed at the base of a finger nail. This can be done by moistening the skin with glycerin or cedar oil and examining under the low power of the microscope in a strong beam of direct light. The capillaries of patients with glomerular nephritis are found to be torturous and there is a spastic contraction of the arterial and a distention of the venous limbs. Following an attack of hemorrhagic nephritis the capillaries often regain their normal appearance, but in prolonged cases the capillary alterations remain and permanent changes in the capillary walls seem to occur. The changes in the capillaries occur coincidently with increase in the blood pressure and it is likely that the capillary constriction is the important factor in elevating blood pressure.

The cause of glomerular nephritis is usually a streptococcus infection. This infection may be anywhere in the body. It is especially likely to be in the tonsils, adenoids, or pharyngeal mucosa; rarely in the nasal accessory sinuses. As the result of the streptococcus infection the capillary system of the entire body, including that of the kidney, is damaged and if the infection remains active irreparable damage may be done, especially to the renal glomeruli. The infection, if chronic, and of low grade, may be insufficient to cause fever. Such infections are not infrequently observed at the roots of the teeth.

In the treatment of these cases the first essential is to find the source of infection and if possible to eradicate it. Operations on the nose and throat during the acute stage of the infection are to be avoided as an exacerbation of the symptoms and occasionally septicemia may occur as the result.

The general care of these patients is of great importance. Further damage to the capillaries must be avoided and no undue strain put upon them. Excessive muscular exercise and chilling of the body surface are especially to be avoided.

As there is definitely impaired renal function with retention of nitrogenous end products, a low protein diet is essential. The protein of milk is the most suitable form of protein. Salt should be restricted, but water should be given in large amounts. The patient should have an occasional "sugar" day, when he receives nothing but 10 gm. of cane sugar per kilo of body weight, dissolved in 1000 to 1500 c.c. of fruit juice. Such a restricted diet often leads to a disappearance of the hematuria and a fall in the non-protein-nitrogen of the blood.

Diuretics are distinctly contraindicated in cases of glomerular nephritis. The administration of alkali to patients with glomerular nephritis not infrequently brings about the symptoms of tetany with convulsions or even definite uremia. Alkalies are, therefore, contraindicated even in the presence of acidosis.

Sweating and purging are of no value in the treatment.

In acute uremia occurring early in the course of nephritis venesection followed by transfusion, or injection of glucose solution is of distinct value.

The two types of nephritis discussed have been considered as separate and distinct diseases but combination forms occur. A patient suffering from nephrosis has a low resistance to infection and is likely to contract a secondary streptococcus infection which will lead to the development of glomerular nephritis on top of the nephrosis.

Again, when the glomeruli of the kidneys are involved there occurs atrophy of the corresponding tubules so that there results a combination of glomerular and tubular changes in the kidney.

If either of the types of nephritis continue for a long period of time a definite inflammatory process with formation of fibrous tissue takes place, the end result being the chronic interstitial nephritis of adult life.

It is doubtful if the conditions discussed bear any direct relationship to the arteriosclerotic kidney of adult life. We know that there may be complete recovery from tubular nephritis or nephrosis provided the casual infection is eliminated. The lesions of glomerular nephritis are more likely to be permanent, but it is not certain that they are progressive provided the infectious cause is eliminated.

The main differences between the two types of nephritis discussed are brought out in the table prepared by Clausen.

	Tubular or parenchymatous Nephritis. (Nephrosis.)	Glomerular or or hemorrhagic neprhitis.
Etiology-Infection	Staphylococcus especially nasal sinuses.	Streptococcus, especially tonsils and mastoid.
Pathology, Microscopic	General parenchymatous tissue injury. Degeneration of renal tubule cells. No deposits of fibrin.	General capillary injury .Glomerular lesions in kidney. Fibrin deposits.
Edema	Marked	Slight or absent.
Urine	Volume much decreased. Albumin, large amounts.	Volume normal or moderate decrease. Albumin. Blood.
Blood:		
N. P. N.	Normal.	Increased.
Chlorides	Normal or low.	Increased.
Serum protein	Low	Normal.
Lipemia	Present.	Absent.
Surface tension	Low.	Normal or high.
P.S.P. test	Normal.	Low.
Pressure	Normal.	Increased.
Uremia	Does not occur.	May occur.
Response to high protein diet.	Good.	Symptoms aggravated.
Response to purin diuretics	May be good.	Symptoms aggravated.
Prognosis	Good, if infection can be removed. No permanent damage.	Good in most acute cases. Permanent damage in chronic cases.
Mode of death	Intercurrent infection.	Uremia.

THE RELATION OF THE KIDNEY TO PREGNENCY TOXEMIAS, ESPECIALLY ECLAMPSIA

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The literature of recent years show an increasing tendency to consider the so-called toxemias of pregnancy as etiologically independent of the kidney. Clinical observations, however, show the two intimately associated and although the kidney, whether normal or pathologic, is not primarily a causal factor of pregnancy toxemias proper, yet when toxemia becomes manifest the kidney will be profoundly affected by it.

In considering the kidney at the onset of pregnancy, we have first the kidney that is quite normal. In these cases the kidney can be affected by pregnancy in at least three ways:

1. By additional strain incident to increased metabolism.

2. By toxins, whatever their source, which are developed during pregnancy and are causative of eclampsia.

3. By mechanical factors which interfere with the drainage of the kidney from torsion of the ureter or increased intra-abdominal pressure and dilatation of the ureter and pelvis of the kidney as recently reported by Kretschmer and Heaney.[1]

Changes in the kidney play a more important role in the toxemias of the last trimester than they do in the earlier toxemias of pregnancy. It is in the later months that the signs of kidney involvement bear such a direct relation to the diagnosis of on-coming eclampsia.

Even with perfectly normal kidneys it may be said that there is a certain amount of toxemia manifested in every pregnancy. This pregnancy poison according to the autopsy findings of Mordre[2] produces a glomerular nephritis which may disappear or persist postpartum.

This investigators found that young women previously healthy acquired an acute disease associated with albuminuria and eclampsia without any other known cause in pregnancy.

In the great majority of women the organism takes care of the added strain of pregnancy without symptoms of toxemia or damage to the kidney or toxemia or eclamptic symptomatology. But under some circumstances which are not yet entirely clearly explained pregnancy may result in some damage to the kidney without toxemic symptoms or a toxemia is produced which has as a part of its effect more or less damage to the kidney.

When the kidney is already chronically impaired or when, on account of some pre-existing cause its resistance to strain is decreased, it may be expected that the impairment will be intensified. In addition to this, such a diseased kidney will fail to dispose of pregnancy toxins as a normal kidney might do and result in a condition which cannot be differentiated from an eclampsia. This has been called a nephritic toxemia of pregnancy. Kellogg[3] refers to the fact that many women with chronically impaired kidneys go along very well without manifestations unless they become pregnant. The toxemia of pregnancy in these cases at once makes the kidney insufficiency manifest. Kellogg terms this the recurring toxemia of pregnancy.

It is probable that many such impaired kidneys result from the exanthemata of childhood and that they do not light up until some extraordinary event, such as pregnancy, is present. Such women are sub-standardized for the ordeal of pregnancy. There can be little doubt that here the kidney manifestations are always secondary to the toxemia. I agree with the opinion expressed by Wuth[4] that although there is definite evidence of some impairment of the kidney secretion function during pregnancy, there is no evidence that such kidney impairment is the cause of the toxemia which ends in eclampsia. The kidney impairment, whether primary or intensified, is an effect and not a cause.

It has been pointed out by Harris[5] that there are four distinct varieties or groups of clinical toxemias connected with pregnancy:

1. Nephritic toxemia without convulsions.
2. Nephritic toxemia with convulsions.
3. True pregnancy toxemia evolving to a pre-clamptic state.
4. True pregnancy toxemia with convulsions.

The kidney toxemias are found in women who are handicapped by a more or less severe nephritis and in whom the extra demands of pregnancy may produce a toxemia akin to uremia, with or without convulsions. In the true pregnancy toxemia the symptoms may come on without pre-existing kidney impairment and the symptoms may disappear after the end of pregnancy. But there is reason to think that the kidney in at least some of these cases will be permanently damaged.

We do not know why some women, either primiparae or multiparae, with impaired kidneys will go through pregnancy without apparent toxemia, while others succumb to uremic or eclamptic primiparae or multiparae, with apparently normal kidneys, develop a pre-eclamptic or a complete eclamptic syndrome, while others do not.

We know something of the relative frequency. Statistics in general show that 6 per cent of pregnancies will develop toxemia. Bunzel[6] finds that 11 per cent of all toxemias of pregnancy are accompanied by convulsions and that they appear in less than 1 per cent of all pregnancies. Cary[7] found one eclampsia in every 200 consecutive pregnancies, primiparae and multiparae being about equally affected. Heinlen[8] in 1,400 labors found 252 cases of eclampsia, 223 of the patients being primiparae. A discussion of the underlying etiological factors connected with the toxemias of pregnancy and the exact origin of them is of little use at this time, but Strogonoff[9], of Petrograd, thinks that these toxins irritate the central nervous system, especially the vasomotor system, causing spasm of the blood vessels which results in high blood pressure, headache, sensory disturbances, epigastric pain and convulsions. Spasm of the kidney vessels produces the known urinary symptoms.

From the standpoint of the treatment of these cases the observations of Gessner[10], of Baum[11], and other German writers are interesting. They noted that the incidence of eclampsia was greatly reduced during the World War when there was a deficiency of fatty and protein food.

I have dwelt thus far on the general aspects of the toxemias of pregnancy, including eclampsia, because there is a widespread erroneous impression that the kidney plays the causal part in these conditions. Kidney manifestations are, therefore, looked for before coming to a diagnosis, although as a matter of fact albuminuria and other kidney symptoms may be late manifestations of the pre-eclamptic state. The diagnosis of threatened eclampsia should be made in most cases before the urine shows the effect of the poison on the kidney.

It is important to regard every pregnant woman as a potential eclamptic simply from the fact of the pregnancy itself. Every pregnant woman should be carefully watched for the appearance of symptoms, not necessarily kidney symptoms, which suggest toxemia and pre-eclampsia. Those pre-eclamptic symptoms, though so well known, will bear repeating here —high blood pressure, headache, eye symp-

toms, epigastric pain, nausea and nervous irritation.

It must be remembered that any one or several of these symptoms may be absent shortly before an eclamptic seizure. The diagnosis must be made upon the presence of one or more of the symptoms or signs, the rate at which they advance, and their severity. If we wait for all of them to appear, or for any of them to become too severe, we may not succeed in preventing an eclamptic attack. Practically every case of eclampsia admitted to Cook County Hospital in the last five years has given a history of premonitory symptoms occurring from a few days to several weeks before admission, which indicated plainly the approach of the convulsions.

The specialist in obstetrics rarely sees an eclampsia among his own patients and when one does occur he believes that the fault lies with himself or perhaps with the patient who has failed to obey orders. If every doctor who undertakes the care of a woman during her pregnancy and confinement felt the same way about his patients, the incidence of eclampsia would be materially decreased.

The high blood pressure is probably the most constant of the signs of the pre-eclamptic state, though we have known of patients who developed convulsions with blood pressures as low as 130. All of them, however, presented other signs of threatened eclampsia so marked that the condition could be diagnosed. A rapidly rising blood pressure is of great significance. A ten or fifteen point rise up to 140 within a short time would indicate greater danger than a blood pressure of 150 which might have slowly risen to this point over a long period of time. Blood pressure observations should start as early as possible in pregnancy in order to obtain a standard for that patient.

Epigastric pain is not so constantly present and usually appears shortly before convulsions.

Headache is an earlier symptom and frequent, though mild headaches in the last trimester should be thoroughly investigated and regarded as signs of toxemia unless proved to be due to some other cause. A severe headache commonly precedes the eclamptic attack.

Eye symptoms from slight dizziness or spots before the eyes to partial or complete blindness are pathognomonic.

Edema in any part of the body except below the knee is an important sign of toxemia.

Nausea which is severe or persistent is present in many of these cases.

Nervous irritation is indicated by sleeplessness, a feeling of unrest is a characteristic symptom and when accompanied by others will often complete the picture.

We have two principal resources in the management of the pre-eclamptic state—diet and hygiene and termination of the pregnancy. The diet is low in proteins, especially animal proteins. It is the writer's practice to limit this part of the diet in every patient at the first interview, even if very early in pregnancy, regardless of the presence of any symptoms of toxemia. It is believed that most pregnant women do better with meat, fish or fowl, limited to three times a week and having in their diet a greater proportion of starches and sugars. As the pregnancy continues the amount of protein in the diet is further reduced if symptoms of toxemia appear. Daily bowel action is provided for by diet, mineral oil and occasionally cathartics if necessary and the skin kept active by frequent bathing. If, in spite of this prophylactic regime one or more of the symptoms of toxemia or the pre-eclamptic state appear, such as slowly and steadily or rapidly rising blood pressure, or one or more of the other signs or symptoms, the patient is put to bed on a rigid protein-free diet, saline catharsis and increased elimination by the skin provided for. She is under daily or hourly observation and the question of induction of labor is considered as soon as it is found that the progress of the case toward a convulsive attack is not arrested. This question is easy or difficult to decide depending on several factors. First, the severity or rate of progress of the symptoms. Second, the period of the pregnancy. If after the eighth month it may be best to induce labor simply to save the organism and the kidneys, the further damage which a continuation of the pregnancy would entail, and this without danger to the baby. If eclampsia threatens in spite of treatment before viability or near this period, each case must be judged on its merits. Here the decision must be made as to whether the danger that threatens the mother justifies the sacrifice of the baby or whether we may carry the pregnancy to a safer period for the baby without subjecting the mother to the dangers of eclampsia. Our knowledge of the subject is not yet complete enough to enable us to decide accurately in each case of late toxemia which one may be safely allowed to continue with signs and symptoms of threatened eclampsia present and progressive. It occasionally happens that nature decides the question for us, by the inauguration of labor and emptying the uterus.

An important question within the scope of this paper of the permanent effect of pregnancy toxemias on the kidney. Do the kidney lesions caused by pregnancy toxemias persist? A study of these cases in Johns Hopkins Hospital by Harris[16] showed that the great majority of eclamptic mothers examined the year after delivery showed no renal damage, but three out of twenty-seven examined did show such lesion. Fifty-five patients who had clini-

cal pre-eclamptic toxemia were examined one year later and thirty-three showed chronic renal involvement. There were 10 later pregnancies in this group and each case was complicated by nephritic toxemia. Chronic nephritis, but more severe in type, was also present in all patients of the nephritic toxemia group who were examined later. The absence of the signs of nephritis three weeks after delivery in cases of pre-eclamptic toxemia and eclampsia does not, therefore, preclude the possibility of permanent renal damage or that such patients may face future pregnancies without fear of toxic complications.

The kidney bears an important relation to the etiology of eclampsia, but it is not the primary cause of disease.

The underlying cause of eclampsia is some poison originating from the pregnancy itself.

Uremic convulsions, if actual or threatened, cannot be differentiated from eclampsia in pregnancy.

Urinary findings may not appear until shortly before the attack.

The treatment of threatened eclampsia and uremia is the same.

In the present state of our knowledge of the subject we must regard the symptoms of late toxemia as evidence that convulsions will follow if successful treatment is not instituted.

Eclampsia is a preventable disease and a very large part of the responsibility for its prevention lies with the physician to whom the patient goes for care during her pregnancy and confinement.

CARDIAC INDEX—A MEANS OF PROGNOSIS IN PULMONARY TUBERCULOSIS*

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Prognosis in any disease is of extreme importance, for it is with this question that the physician is most often confronted. Therefore, any information that will aid him in arriving at a decision relative to the length of illness, period of convalescence, permanence of recovery, and a span of life should be considered as a valuable addition to the armamentarium of his professional knowledge.

The many phases peculiar to the different diseases make the problem of prognosis a most intricate one, and the conscientious practitioner realizes that before a decision can be made, all factors governing the course of any illness must be considered. Hence, in patients suffering from pulmonary tuberculosis, the clinician must take into account such factors as age, environment, mental state, constitution, character of lesion and the like, before giving a prognosis.

The lamentable paucity of specific and detailed studies on low blood pressure and its relation to various diseases is striking. We know that various diseases are associated with low blood pressure such as: (a) acute infectious diseases i. e. typhoid fever, pneumonia, etc. (b) chronic wasting diseases—tuberculosis, carcinoma, Addison's disease, (c) anemia, both primary and secondary; (d) nervous diseases —general paresis, neuraesthenia, Basedow's disease at times; also in intoxications such as alcohol, tobacco and acidosis resulting from diabetes.

A brief review of the literature disclosed the work of Gibson[1] who formulated a blood-pressure, pulse-rate ratio in prognosticating cases with pneumonia. It is claimed that when the blood-pressure expressed in millimeters of mercury remains above the pulse rate expressed in beats per minute, the case has a favorable prognosis and vice versa.

Most clinicians believe that there is a definite relation between the low blood pressure existing in patients suffering from pulmonary tuberculosis and the toxemia present in this disease. With this thought in mind, we decided to make a careful study of blood pressure in tuberculosis. It is no exaggeration to say that our present day classification, meritorious as it is in its applicability to the pathology in tuberculosis, is unreliable, save, the so-called intangible factor of judgment as a means of foretelling with any certainty the outcome of the disease. Considering the fact that tuberculosis occurs in individuals at the time of life most productive economically; and considering the chronicity of the disease, the question arises, how long, if ever, will it be before the patient is sufficiently improved to resume part time work.

The well known fact that we have an almost characteristic low blood pressure[2] with a rapid pulse in this particular disease, lead us to correlate them into a ratio, which is the arithmetical mean[3] of the systolic and diastolic reading divided by the pulse rate per minute. This yielded an interesting and consistent quotient; and in want of a better term, it was the opinion of the authors that this quotient best be designated as the cardiac index.

$$\text{Cardiac Index} = \frac{\text{Systolic} + \text{Diastolic}}{2 \text{ Pulse rate per minute}} \text{ or } \frac{S+D}{2\ P.R.} = C.I.$$

Although the blood-pressure bears no definite relation to the degree of involvement[4] it does, with the degree of toxemia, which is manifested by a fall in pressure and an increase in pulse

*Read before the Michigan Trudeau Society at the Eighteenth Annual Session of the Mississippi Valley Conference on Tuberculosis.

rate. This seems to justify our belief that the so-called cardiac index indicates indirectly the amount of toxicity.

The study was first begun January, 1924, and continued for a period of fourteen months, during which time an average of five readings was obtained on 700 patients. The majority were men and a comparatively small number, women. Blood-pressure readings, and chest examinations were made monthly. The initial reading was taken and a quotient computed about two days after admission, using the initial cardiac index alone as the basis of classification.

The Tycos sphygmomanometer and auscultatory method were used. Systolic reading was taken in the usual way, and diastolic reading recorded at the fifth phase, i. e., at the point where the sounds were no longer to be heard. The heart rate was always obtained with a staethoscope at the apex and timed for one minute, and all readings were taken by one physician.

Through the courtesy of Dr. G. B. Davis, surgeon of the Illinois Steel Company, a control of pressures on fifty workers was obtained, and the average cardiac index found to be 1.21.

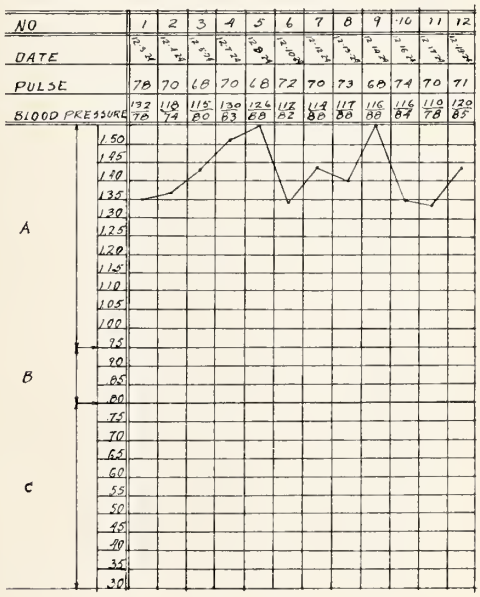


FIGURE 1

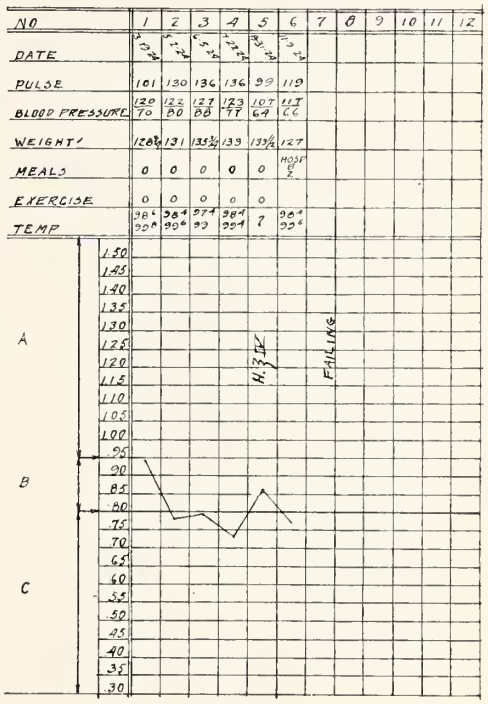


FIGURE 3

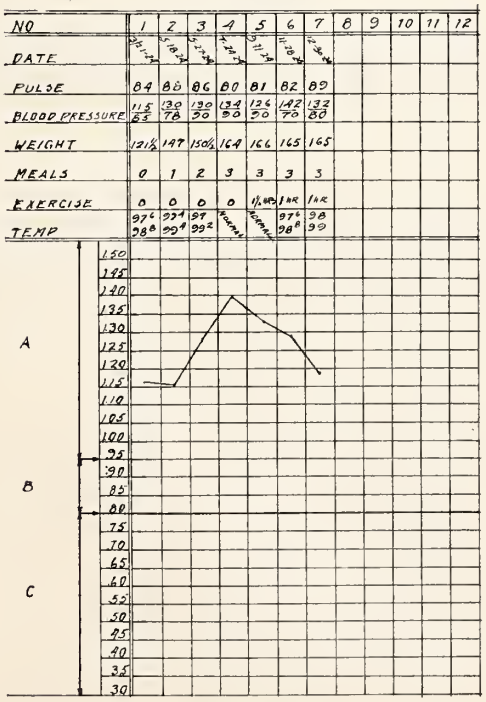


FIGURE 2

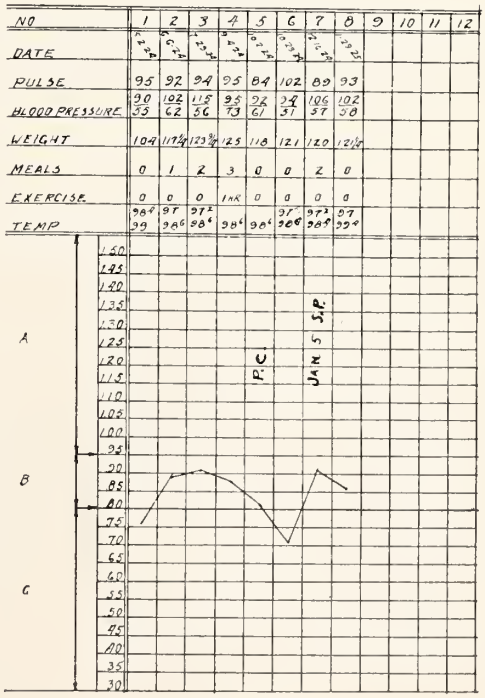


FIGURE 4

Twelve daily consecutive readings were taken of two normal individuals, and a curve plotted to show the normal daily variation (Fig. 1). In order to ascertain the progress of patients who left the institutions, questionnaires were sent out and the results included in this report.

Cases were divided into Class A, B, and C—favorable, doubtful, and unfavorable, respectively. Class A included all having an initial cardiac index from .95 to 1.50 and upward; Class B from .80 to .95; and Class C from .30 to .80 (Fig. 2, 3, 4 and 5) respectively.

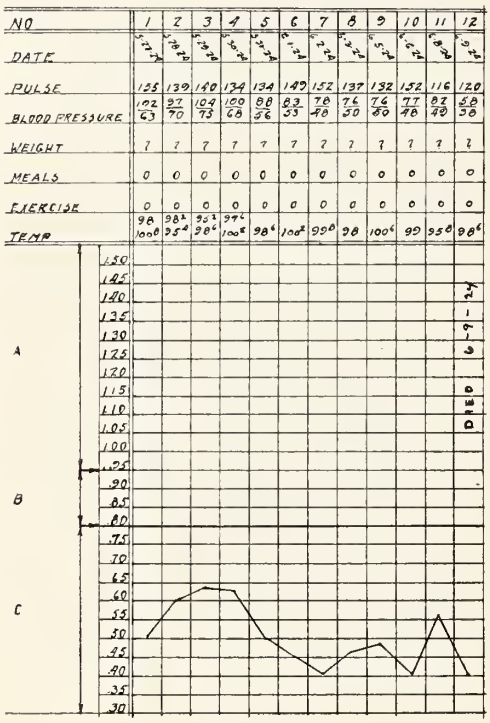


FIGURE 5

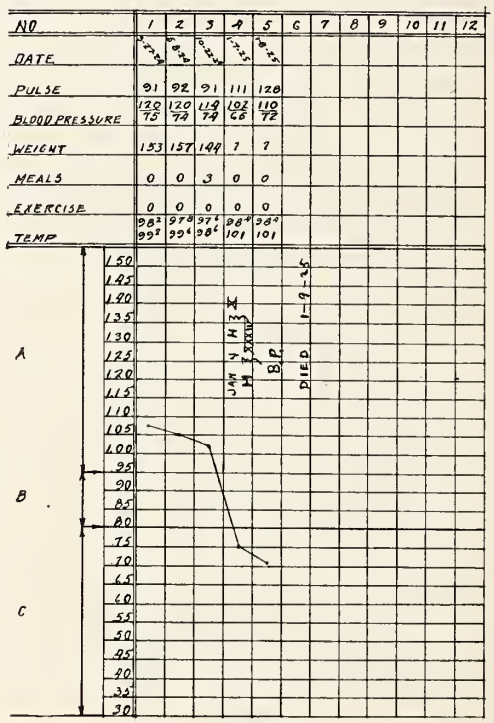


FIGURE 6

Chart I shows 339 patients, or 48.5 per cent of the total of 700 to be in class "A". Of these 264, or 78 per cent improved; 257, or 75.5 per cent, were ambulatory, i. e., were on one to three meals in the dining room; 81, or 24 per cent, on exercise.

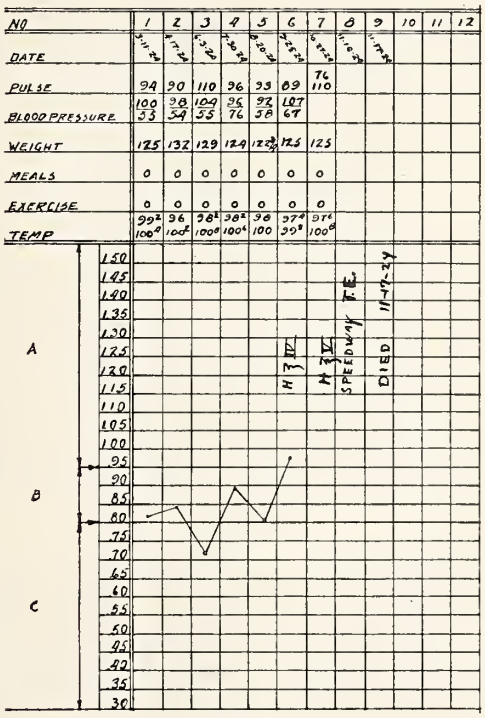
Of the 156, or 22 per cent of the total in Class "B", 78, or 50 per cent, improved; 41, or 26 per cent, failed; 37, or 24 per cent, died; 44, or 28 per cent ambulatory; 19, or 12 per cent, on exercise. It is of interest to note that 50 per cent improved as compared with 26 per cent failed, and 24 per cent died—thus the doubtful class. Of the 205, or 29.5 per cent of the total who were in Class "C", 36, or 17.5 per cent improved, 48, or 23 per cent failed; 121, or 59.5 per cent died; 21, or

CHART I.

Class of Patients	Total No. Patients	Improved	Failing	Dead	Ambulatory	Exercise	Spon. Pneumo Thorax	Art Pneumo Thorax	Nephritis	Positive Wass.	Non-Clinical	Average Initial Quot.	Average Subsequent Quot.
A.	339	264	39	36	257	81	3	1	27	35	10	1.17	1.11
	48.5%	78%	11.5%	10.5%	75.5%	24%	.9%	.3%	7.9%	10.3%	2.9%		
B.	156	78	41	37	44	19	2	4	6	11	3	0.87	0.93
	22%	50%	26%	24%	28%	12%	1.3%	2.56%	3.8%	7%	2.5%		
C.	205	36	48	121	21	3	21	5	20	9	3	0.66	0.69
	29.5%	17.5%	23%	59.5%	10%	1.5%	10%	2.8%	9.7%	4.3%	1.9%		

10 per cent were ambulatory; 3, or 1.5 per cent were on exercise.

Chart II shows a record of 194 deaths, the number and per cent in each class. The noteworthy findings are the relatively high percentage of hemoptysis, 41.5 per cent; high percentage of cardio-renal disease, 33 1/3 per cent; the percentage of positive Wassermanns, 5.5 per cent, and of meningitis, 2.5 per cent in Class "A" as compared with hemoptysis, 32 per cent; cardio-renal, 10.5 per cent; positive Wassermanns, 2.5 per cent in Class "C". This, in short, means that in the presence of a favorable cardiac index as is found in Class "A" patients, a guarded prognosis must be made when the patient gives a history of hemoptysis, or where complications such as above mentioned are demonstrable (Fig. 6, 7, 8, 9).



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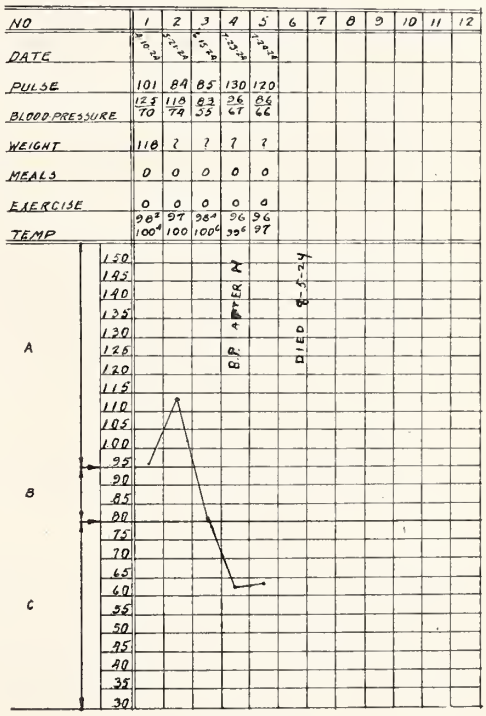

FIGURE 8

CHART II.

Class	Total No. of Deaths	SPUTUM		URINE			Hemoptysis		COMPLICATIONS						Non-Clinical
		Positive	Negative	Albumen	Negative	T. B. in Urine	TOTAL		Cardio-renal	Laryngitis	Meningitis	Spon. Pneu.	Suicidal	Syphilis	
							15—41.5%								
							Frank	Bronch Pneu.							
A.	36	31	5	11	25	3	2	5	12	4	1	3	2	2	0
	10.5%	86%	14%	30.5%	69.5%	8%	5.5%	14%	33⅓%	11%	2.5%	8%	5.5%	5.5%	0
							11—30%								
B.	37	34	3	7	30	0	0	0	2	4	1	2	0	2	0
	24%	92%	8%	19%	81%	0	0	0	5.5%	10.5%	2.5%	5.5%	0	5.5%	0
							38—32%								
C.	121	107	14	21	100	4	3	13	13	7	0	18	1	3	0
	59.5%	88.5%	11.5%	17.5%	82.5%	3.5%	2.5%	10.5%	10.5%	6%	0	15%	0.8%	2.5%	0

Chart III. shows by the process of elimination 23 Class "A", or 6.8 per cent non-complicated cases and free from the tendency of hemoptysis to be failnig; 15, or 4.34 per cent dead, or a total of 11.14 per cent showing a tendency to be unfavorable. In contrast we were able to show by ruling out our non-clinical as you see in Chart III, that only 10, or 12.6 per cent tuberculous patients of Class "C" improved. In other words, Class "A" shows an improvement of 88.86 per cent, while Class "C" 87.4 per cent, showing a tendency to be unfavorable. This striking difference is based on a nine-month average period of observation.

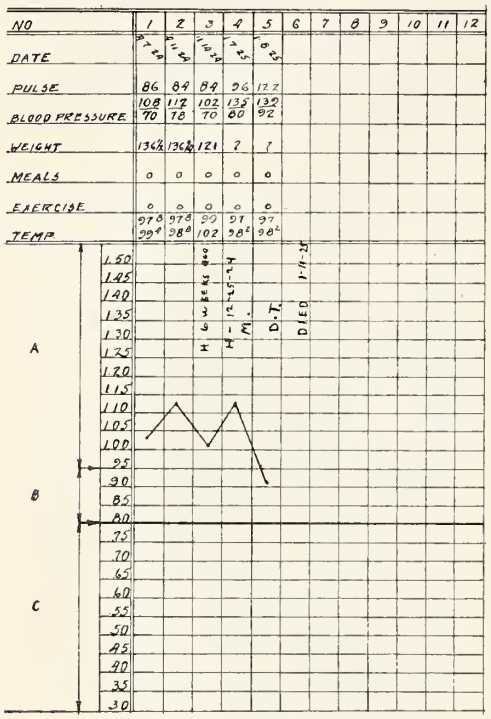

FIGURE 9

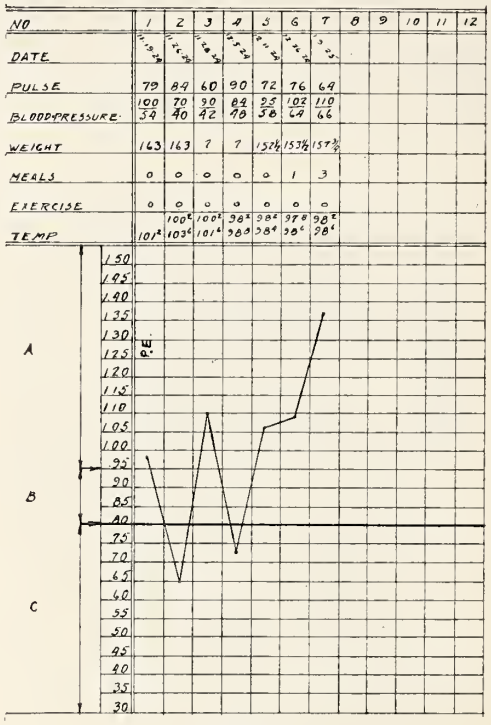

FIGURE 10

In making this observation we found that in the greater number of cases the initial cardiac index was reliable and that if once in Class "A" there would be a tendency for the total average of the indices to stay in Class "A" re-

CHART III.

CLASS	FAILINGS					DEATHS					
	Total No.	Hemoptysis	Cardio-renal	Positive Wass.	Non-Complicated	Total	Hem. Frank	Hem. Broncho. Pneu.	Cardio-renal	Positive Wass.	Non-Complicated
A.	39	11	4	1	23	36	2	5	12	2	15
	11.5%	3.2%	1.5%		6.8%	10.5%	2.06%		4.1%		4.34%

	IMPROVED									
	Total	NON-CLINICAL						Art. Pnth.	Positive Wass.	Clinical Improv.
		Un-Resolved Pneu.	Pneumonia	Exoph. Goitre	Herpes Zoster	Diabetes	Alcoholisim			
	36	1	1	1	1	1	1	1	3	10
	17.5%	0.48%	0.48%	0.48%	0.48%	0.48%	0.48%	0.48%	1.54%	12.6%

gardless of the normal fluctuation. The same is true of those in Class "C". The exceptions to this are the Class "B" patients, where the

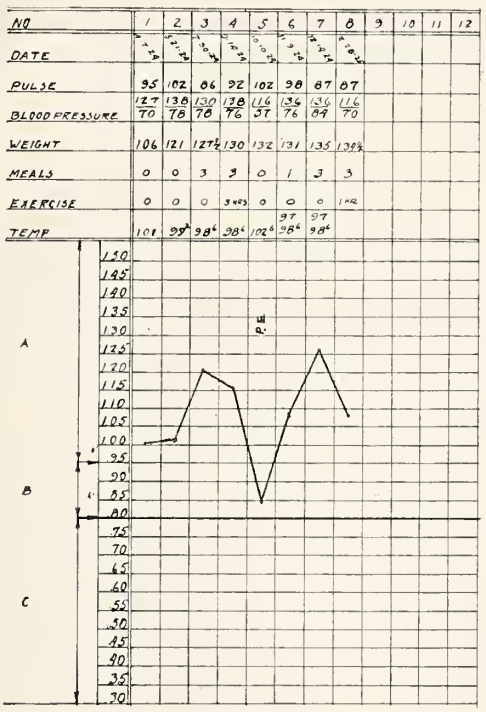

FIGURE 11

cardiac indices are apt to go up to Class "A" with improvement, or down to Class "C" with ultimate death. Aside from the exceptions already made in Class "A" we were able to study the curves of pleurisy with effusion, and to our surprise found those curves to show wide and interesting fluctuation, which are shown in Fig.

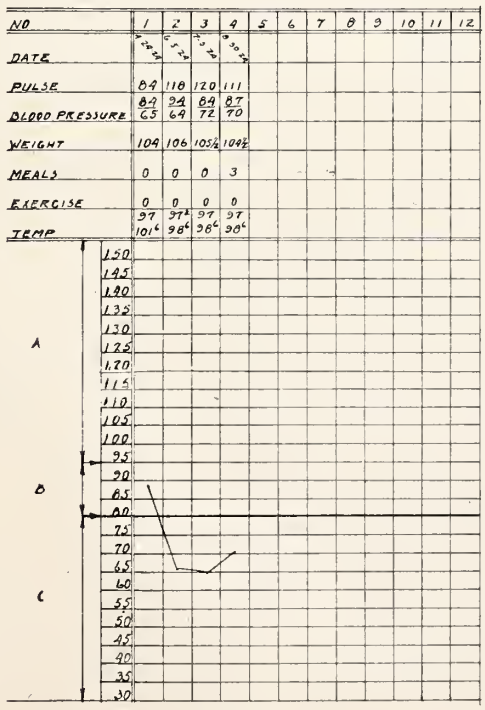

FIGURE 12

10, 11. These curves correspond closely in an inverse relation to the temperature present.

CONCLUSION

1. That the Cardiac index has a definite value as a method of classifying tuberculous patients, is shown by the fact that out of 339 patients in Class "A" (favorable class), 88.86 per cent improved; Class "B" 156 patients (doubtful class), 50 per cent improved, 26 per cent failed and 24 per cent died; Class "C" 205 patients, 23 per cent failed, and 59.5 per cent died.

2. That a monthly computation and plotting of the cardiac index is of value to show the progress of the patient, is the belief of the writers.

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EVIDENCE IN FAVOR OF THE MICROBIC ORIGIN OF CARCINOMA*

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In order to understand the obscurities, mysteries and fantasies which have arisen about the cancer problem, it is necessary to know something of the history and development of pathology and bacteriology. Beginning with Galen, we find from his teachings that the genesis of all tumors is ascribed to the accumulation of a variety of hypothetical tumors. After Galen there followed some fifteen hundred years of darkness and superstition with a general belief that disease was due to the machinations of evil spirits except when it came as a retribution for sin. With the discovery of the circulation of the blood in the seventeenth century, it was natural that tumors should be held to have a sanguineous origin, just as when the lymph was discovered a century later it was inevitable that the inclination would be to find in it the explanation of the formation of new growths. With John Hunter originated the conception that neoplasms have a relationship to normal tissues and arise as a result of some alteration or defect in develop-

*Read as a part of a symposium on "Cancer" before the Bay County Medical Society, Bay City, Michigan, September 28th, 1925.

ment. Following the advent of the microscope came the famous cell theory, according to which the essential element of every tissue is a cell. This theory was first propounded by Schleiden for plants, and almost immediately applied to the animal kingdom by Schwann. About the same time Muller demonstrated the cellular nature of neoplasms, and taught that all cells, including those of new growths, originate from a formative fluid or blastema exuded from the blood. Remak then established the fact that there is a continuous cellular development from the germ cell and that by differentiation these cells are converted into tissues and organs which are to be considered as a mass of minute cells communicating with each other. In 1858, Virchow appeared on the scene and after discarding the Mullerian doctrine of the blastemal origin of cells, adopted the cell theory in its entirety for neoplasms as well as for normal tissues. His doctrine was formulated in the famous phrase "Omnis cellula e cellula"—"Every cell is derived from a cell."[1] So great was the influence of Virchow's authority that few questioned his teaching that neoplasms consist solely of an abnormal overgrowth of the cells of the person or animal concerned. Under the cell theory of cancer are now included all such explanations as (1) Cohnheim's theory of embryonic cell rests; (2) Ribbert's theory of tissue tension; (3) the theory of chronic irritation and injury; (4) the theory of chemical irritation; (5) the theory of disturbed metabolism; (6) the theory of derangement of internal secretions; and (7) the theory of senile changes.

Somewhere in the seventies or eighties of last century when Pasteur, Lister and others were making such vast strides in the elucidation of microbic diseases, we first begin to hear of micro-organisms in connection with the etiology of cancer. Among the first to make a serious study of the question were Nedopil, Scheuerlen, Soudakewitsch, Pfeiffer, Sjobring, Thoma, Ruffer, Galloway, Eberth, Korotneff, Ballance, and Shattock. Somewhat later investigators were Plimmer, Cattle, Clarke, SanFelice, Roncali, Foa, Russell, Montsarrat, Gaylord, Ford Robertson and Doyen. Many of these writers considered that they had discovered the cause in a bacillus, coccus, protozoon, or yeast, but their contentions were vigorously opposed and afterwards submerged. The idea, however, that cancer is a parasitic disease has never been frustrated, and lately much evidence has accumulated to combat the authority of the cellular neoplastic pathogeny.

It is admitted by all that if a specific micro-organism conforming to all rigid laboratory tests can be demonstrated in association with every case of carcinoma the chief objection of the opponents of the extrinsic origin of cancer will have been overcome, and the long-continued struggle between the adherents to the cell theory, who now hold that a cancer cell is a cell which has got beyond the physiological control of the body, and the adherents of the germ theory, who advocate that the cancer cell is an abnormal cell due to the presence of an extrinsic organism within that cell, will be at an end.

CLINICAL EVIDENCE IN FAVOR OF THE EXTRINSIC ORIGIN OF CANCER

Although, as stated above, the incontrovertible proof of the microbic origin of carcinoma is the repeated demonstration by a number of observers of a specific micro-organism answering the law of Koch, it will not be amiss to enumerate an assemblage of facts which very strongly support the germ hypothesis.

1. *Local Origin.* It is now generally agreed that cancer begins locally. This mode of origin is similar to that of admitted infections such as tuberculosis, syphilis and anthrax. The fact that cancer is often preceded by chronic irritation in no way lessens the value of the analogy, as the irritation should be considered as a predisposing agent in lowering the resistance of the epithelial tissues and preparing them for the reception of the invading micro-organism.

2. *Lymphatic Spread.* At first cancer cells multiply locally and invade the surrounding tissues; they then are carried by the lymphatics and the blood-stream from this primary focus and form secondary growths which are structurally identical with the primary. Lymphatic spread is the usual mode of travel for most infections, the chief difference between these and carcinoma is that in the latter the infection is conveyed as a microparasite within an epithelial cell.

3. *Clinical Similarity Between Carcinoma and Infective Diseases.* It has been the experience of almost every clinician to have met with cases in which the local lesion and the general clinical appearance of carcinoma, tuberculosis and syphilis were so similar to one another that a positive diagnosis without the aid of laboratory tests was impossible.

4. *Latency.* No explanation other than that of the microbic doctrine can explain the latency and variations in the rate of growth at different periods in the course of the neoplastic diseases. We have all seen cases of carcinoma in which a remission of the symptoms and signs has been followed by a period of recrudescence in the same manner as in patients suffering from syphilis or tuberculosis.

5. *Human Contagion.* Countless examples might be cited to show that cancer is a communicable disease. Opponents of the microbic doctrine explain all such occurrences by saying that they are no more common than might be expected in such a prevalent disease; and, moreover, that the cases in which inoculation

of cancer has been fully demonstrated to have taken place are to be considered as incidences of mere transplantations of cancerous tissue. The first statement of such an argument is counteracted by recalling the fact that it is identical with the argument advanced against the contagiousness of tuberculosis not more than thirty-five years ago; and the second part of the argument is shown below to have no material weight—even if such occurrences are considered as transplants—in view of the evidence adduced that cancer can be produced by inoculations of a micro-organism isolated from cancerous tissues.

6. *Selective Action for Epithelial Tissue.* This is in keeping with many microbic diseases whose causal organisms exhibit selective action for limited areas of various tissues. Witness the preference of pneumococci for lung tissue, typhoid bacilli for lymphoid tissue, rabies for nerve tissue, and meningococci for the meninges; and yet while these and other organisms are selective for certain tissues, they never infect all of that particular type of tissue present in their host, but only a more or less limited area of such tissue. Bland Sutton expresses this phenomenon in the following words, "As the living things in a brook thrive best in certain haunts, so the vegetable and animal forms infesting animal bodies exhibit a marked preference for certain organs and tissues."[2]

7. *Infection Occurs at Site of Lowered Resistance.* Just as the invasion of organisms causing most of the infectious diseases is successful owing to the presence of conditions which have lowered the local resistance of the tissues assailed, so, too, does infection with the carcinoma organism occur at sites where the resistance of the epithelial cells has been lessened by some form of chronic irritation. Research work has been carried out to determine the relationship between chronic irritation and malignant epithelial growths and it has demonstrated that the resistance of the epithelial cells must be lowered before they can be successfully invaded by the carcinoma organism; in other words, it has been found that the carcinoma organism cannot successfully invade a healthy normal epithelial cell. This fact is clearly expressed by Brand, thus, "It (irritation) prepares the soil most admirably for the reception of the causal agent, just as irritation of the soil by ploughing, harrowing, etc., prepares the land for the reception of the seed; but if wheat, for example, is not sown, there will be no crop however thorough the preparation has been. So with cancer, unless the causal agent is present, there will be no disease however great the irritation."[3]

8. *Specific Symptoms.* Like infectious diseases cancer is associated with special signs and symptoms such as tumor mass, pigmentation of the skin, general weakness, loss of weight, mental dullness, and a peculiar characteristic odor.

9. *Variation in the Virulence of Cancer Cells.* In the case of mice, it has been shown that carcinoma cells may be increased in virulence by passing them through other mice. This is in keeping with the behaviour of pathogenic micro-organisms and indicates the presence of intracellular micro-parasites.

10. *Geographical Distribution.* The unequal distribution of cancer, both general and local, is a strong indication of its microbic origin. Corresponding variations are characteristic of most infectious diseases and form a striking analogy.

11. *Closely Allied Diseases.* (a) Hodgkin's disease is considered as an infection by most pathologists whilst lymphosarcoma is still classed as a neoplasm. Cases not infrequently occur in which it is impossible to determine either by ante or postmortem examination whether the condition is one of Hodgkin's disease or of lymphosarcoma. Other cases begin definitely as Hodgkin's disease and end as lymphosarcoma. The only explanation of such facts is the assumption of an infective agent, and, if such is admitted, then carcinoma must likewise be due to infection.

(b) Dr. Rous has shown by his researches that chicken sarcoma is due to a filterable virus; it has always seemed to us that this virus must be an organism. It is the opinion of all those who have done much work with this tumor that it is a true sarcoma as it has all the characteristics of and fully answers every condition requisite to malignant growths. It is therefore only reasonable and logical to assume that if Rous' chicken sarcoma is caused by an organism, other malignant tumors are caused by an organism.[4]

(c) The venereal sarcoma of dogs is a well known infective neoplasm. It is transmitted during coitus from the male to the female or vice versa in the same manner as syphilis in human beings. Such evidence is, of course, strongly suggestive of a micro-organismal cause.

(d) Erwin F. Smith has isolated from crowngall a bacillus which he has named "Bacillus tumefaciens." With inoculations of pure cultures of this bacillus Smith was able to produce tumors in plants which exhibited many of the characteristics of cancer in man and which caused him to point out and to call attention to the probable relationship between crowngall in plants and malignant epithelial tumors in man. Smith's work is a weighty argument in favor of an extrinsic cause for all malignant tumors and disposes of an argument of the opponents of the microbic theory who have been accustomed to point to the close analogy between plant and animal tumors.[5]

Laboratory Evidence in Proof of the Extrinsic Origin of Cancer. With the exception of a few isolated workers, the parasitic nature of cancer has received little attention during the past fifteen or twenty years. The reason for such neglect appears to be that those in charge of the great cancer research institutions have decided that cancer is not a germ disease. It was, perhaps, the failure of the cancer research institutions to solve the cancer enigma that prompted Professor Noel Paton to make the statement that "The discovery of the cause might come from some small laboratory, as many discoveries have come in this way."[6]

Within quite recent years a few workers have made such tremendous strides in the investigation of the bacteriology of cancer that it is our conviction that any impartial person who seriously studies the results of this work will inevitably be forced to the conclusion that the specific origin of cancer has, indeed, ultimately been found.

We shall now review in some detail the recent laboratory work which points to a micro-organism as the essential etiologic factor in malignant growths.

1. The Work of Glover—As we have been especially fortunate in observing and repeating the work of Dr. Glover, we feel that we are justified in discussing it at greater length than the work of any of the others described below. In June, 1920, Dr. T. J. Glover, serologist and clinical pathologist to our hospital, where he had been conducting experimental and research work on carcinoma for some time, demonstrated a number of living and dead experimental animals in which he had been able to produce primary and secondary malignant epithelial growths. The animals included dogs, guinea pigs, mice, rabbits, and rats.

At the same time several hopeless clinical cases of far advanced carcinoma were exhibited to show the specific effect of a weak antitoxin which originated as the result of repeated injections into horses of a toxin obtained from cultures of a micro-organism which had been isolated from human carcinomatous tissues.

As a consequence of the newspaper publicity which followed Dr. Glover's demonstrations, requests for treatment were received from many places. A clinic under our direction was opened at St. Michael's Hospital, but at Dr. Glover's request it was closed in August, 1920, for the reason that it grew so large that the supply of antitoxin was quite inadequate to meet the demand. At that time Dr. Glover stated that his antitoxin was of very low potency, that the proper dosage was not known, that further study on absorption of the broken-down cancerous tissue should be made and more animal experimentation done before proceeding further. The conclusions to be drawn from our clinical experience with this weak antitoxin at that time may be summarized as follows: (a) The majority of the cases sooner or later died, but practically all had previously undergone one or more forms of treatment such as surgical, X-ray, and radium. They were in the last stages of the disease and considered hopeless by their physicians and surgeons. Furthermore, many of the cases were suffering from other well advanced degenerative diseases such as nephritis, arteriosclerosis and cardiac lesions. (b) Most of the cases showed marked diminution of pain, softening and regression of the growth, lessening of discharges, improvement in mentality and a general amelioration of other symptoms. (c) In only a few cases were we permitted to make postmortem examinations, but in nearly all of these the growths showed signs of regression with microscopic degeneration of the cancer cells. (d) A number of cases, which at that time were duly proven to be carcinomatous, are still living and free from all symptoms and signs though they have received no treatment for the past five years.

After the closure of the clinic at St. Michael's Hospital, we were closely in touch with the clinical side of Dr. Glover's work until October, 1920. For the following three years, during which period Dr. Glover spent most of his time in furthering the scientific side of his investigations in his New York laboratory, we took no active part in any phase of the work. In November, 1923, we received an invitation to visit New York, and at that time were permitted to examine living and dead experimental animals exhibiting growths which had all the characteristics of carcinomata. Amongst these animals were represented apes, baboons, macacus rhesus and Java monkeys, and lemurs, in addition to those species mentioned as having been shown in Toronto in 1920. We also studied under the microscope sections of animal tissue from both primary and secondary growths, all of which appeared to show the atypical epithelial proliferation which characterizes carcinomatous growths. A little later we studied the micro-organism which Dr. Glover believed to be the cause of carcinoma, and isolated it from blood and tissue of carcinomatous cases which were under our own care.

In the autumn of 1924, we began to repeat Dr. Glover's work in our laboratory in Toronto, and have since published accounts of some of our work which we shall now summarize.[7 ¼, ½].

Following the method of Glover, strictly avoiding the employment of all cancerous tissue showing any evidence of necrosis or ulceration, and using rigid aseptic precautions and proper controls throughout the work, we have been able to isolate an identical micro-organism from every type of carcinoma with which we worked. This micro-organism not only exists within the cancer cells, but is present as a bacteraemia in the blood of cancerous patients. Its life history is decidedly peculiar and consists of three separate and distinct stages, viz.: (1) bacillus, (2) coccus, and (3) spore-sac. Each of these individual stages can be grown in pure culture, but an alteration in the composition or the reaction of the culture medium or its environment may cause one stage to pass into another in the above order or the reverse. An intermediate phase between the bacillus and coccus stages is the so-called spore phase in which the micro-organism assumes an ovoid form. As far as we have been able to observe,

the complete chain in the complex life history of this pleomorphic micro-organism is represented by bacillus, spore, coccus, and spore-sac.

In addition to the metamorphosis from stage to stage, variations of a lesser degree occur in each individual stage. For example, spore-sacs exhibit variations in size and shape, and may or may not be associated with hyphae. Cocci are spherical and comparatively small when passing to or from the spore-sacs, but are ovoid and larger (the so-called spores) when giving rise to bacilli. Bacilli are small and thin when young, but become longer and thicker when older and containing spores.

A striking feature of the life-cycle of the Glover micro-organism is that it is filterable in at least one of its phases. This test is carried out in two ways, as follows:

(1) A fluid culture of actively growing micro-organisms in either the bacillus or the coccus stage is first passed through a sterile Buchner filter, in which pressed sterile pulp one-half inch in thickness has been placed, to rid it of all the larger solid particles. The filtrate is then passed under pressure through a sterile W Berkefeld filter which has been previously tested against unfilterable organisms. A portion of the second filtrate is then poured over the solid medium and incubated at 37°C. Within forty-eight hours pure cultures of bacilli or cocci which show all the characteristics of the Glover micro-organism are found to be present. Controls are invariably negative.

(2) A piece of fresh carcinomatous tissue is taken and divided under sterile conditions into two parts. One of these portions is placed on solid medium and incubated at 37°C. The other portion is minced with sterile sharp scissors and thoroughly ground with sterile sand in a sterile agate or porcelain mortar in order to break up the cells; sterile Ringer's solution is then added until the mass is well diluted and all is then thoroughly mixed. The suspension is next filtered and allowed to gravitate through layers of pressed sterile pulp to remove the sand and crushed tumor cells. This filtrate is then passed under pressure through a sterile W. Berkefeld filter which has previously been tested against unfilterable organisms. The second filtrate is placed on solid media and incubated at 37°C. After one to three days a pure culture which is identical with the culture obtained from the corresponding portion of the same tissue is found. This shows all of the characteristics of the Glover micro-organism.

Gelatin, after being inoculated with stab cultures of the micro-organism, is completely liquified in from three to five days at room temperature. All sugars of a series with which we worked, excepting granatose, are fermented within two days at 37°C. The amount of fermentation and the increase in acidity of the sugar broth, and the degree of liquifaction of gelatin depend, however, upon the virulence of the culture; where the organism is attenuated by keeping it for some time under conditions unfavorable to its growth it loses more or less of these specific properties varying directly with the degree of attenuation. With Russell's double sugar agar medium the pale yellow color is changed to a deep rose pink and the gas which accumulates in the butt end of the tube raises the medium quite markedly in from one to two days at 37°C. The controls in all our experiments were invariably unchanged.

When the organism is grown in a fluid medium the acidity of the medium is at first increased due to the splitting of the sugar present in the medium; after all the sugar has been used and as the production of the toxin reaches its maximum the reaction of the medium becomes alkaline. We believe that the action of the organism on the sugar in the fluid medium is similar to that which occurs in the tissues when the organism invades an epithelial cell, i. e., it acts on the cell sugars, splitting them and causing an excess of acid and at the same time liberating weak toxins. It is to these complex chemical substances or toxins that we must attribute the abnormal cell proliferation in carcinoma.

In the agglutination test the serum employed is from horses immunized against human carcinoma cultures by repeated injections of human strains of the Glover micro-organism over a given length of time. The antigen used is a definite dilution of the same micro-organism as employed for the immunization of the horse against carcinoma. Complete agglutination of the carcinoma antigen takes place up to 1 in 30,000 dilution. None of the others of a large series of pathogenic and non-pathogenic antigens are agglutinated with the exception of the colon antigen, which agglutinates up to 1 in 25 dilution.

In the precipitin test 1 c.c. of an organism-free old standard toxin—which is the killing dose for a full-grown white mouse—is used against certain dilutions of the Glover antitoxin. The human carcinoma antitoxin is found to precipitate the toxin up to 1 in 30 dilution, while various samples of fresh normal horse sera do not precipitate the toxin.

The staining properties of the micro-organism present nothing unusual. It takes most of the ordinary stains and is gram positive. The bacillus, spore and coccus stages show a much greater affinity for stains than the spore-sac stage.

In the course of our work we have carried out experiments and made observations with the use of a number of media other than those supplied by Dr. Glover. These media included nutrient gelatin, beer wort sugar agar, peptone agar, fresh beef heart hormone agar, and

hormone broth, all of which were prepared so as to have a p^H. ranging between $7._2$ and $7._6$. In a number of instances during our work with these media a cultural growth of the Glover micro-organism was obtained from the blood and tissues of cancerous patients as well as from cultures which had been transferred from the Glover medium. We observed that on most of these media the organism persisted in the coccus stage, occurring singly, in pairs, and chains of three or more simulating the appearance of a streptococcus. The assumption of the streptococcal form is apparently due to division of the cocci. All these forms of cocci could be induced to pass into the bacillus stage by subculturing on the Glover medium. In our opinion, the tendency of this micro-organism to appear as cocci on other media is the reason why some observers have been able to isolate it only in the form of micrococci, and upon which findings they base their arguments that the cancer organism is a micrococcus rather than the pleomorphic micro-organism which it is and which we have demonstrated it to be. Other striking differences noted in the use of these media is the scantiness of growth as compared to the luxuriant development which takes place on the Glover medium, and also the tendency of this scant growth to diminish in the course of a few days.

For the work done on immunity and for a description of the production of carcinomata in monkeys by inoculation of the Glover micro-organism, you are referred to the work of Dr. M. J. Scott.[8] [1/4], [1/2]. Scott was able to produce malignant epithelial growths with distant metastaces in a large percentage of the animals that survived the initial toxic effects of the injections and escaped death from intercurrent diseases. No mechanical or chemical irritation other than sublethal doses of the carcinoma toxin was used and all control animals were free from growths.

2. The Work of Young—Although Young's publications in the Edinburgh Medical Journal date back for some years our first knowledge of his work was in January, 1925, when an address by him appeared in the British Medical Journal[9]. The description of Young's carcinoma organism corresponds very closely to that of Glover's as will be evident from his words, "I have shown that the microbe has a complex morphology, appearing in a variety of forms, each of familiar type and each capable of leading an independent life: hypha, yeast, coccus and bacillus." In addition to the above form, Young deduces the presence of a totipotential plasm or amorphous phase. This amorphous phase, Young believes to be an essential link in the chain of the morphology of the cancer micro-organism.

3. The Work of Nuzum—In 1921, Nuzum reported the isolation of a filterable micro-organism from mouse cancer[10¼]. In a later paper an account of the isolation of the same micro-organism from human breast cancer is given[10½]. In the latter paper an account is given of the production of metastasizing carcinoma in the breast of the dog and primary epithelioma in man by repeated inoculations of this organism. After a careful consideration of Nuzum's writing it appears probable that his micrococcus is an identical organism with the coccus phase of the organism of Glover and of Young, since in our work we have frequently isolated from cancerous growths and from the blood of cancerous patients micrococci which could be induced to pass into other forms after transferring to other media. It would, indeed, be an interesting experiment to attempt to show a plemorphism in Nuzum's micrococcus paralleling that in Glover's and in Young's.

4. The Work of Lumsden—Dr. Lumsden, of the Lister Institute, London, has shown experimentally that cancer cells differ materially from embryonic and normal epithelial cells[11]. In this work Lumsden employed normal rat serum as well as antiserum obtained from rats which had previously been immunized against mouse cancer through initial subcutaneous inoculation and subsequent repeated intraperitoneal injections of emulsions of mouse carcinoma tumors over definite periods of time. In his experiments Lumsden clearly demonstrated that when embryonic tissue, various normal epithelial tissues and mouse carcinoma cells were cultured in normal rat serum they all continued to grow vigorously and that the mouse cancer cells showed active migration; while when similar embryonic tissue, similar various normal epithelial tissues and similar mouse carcinoma cells were cultured in the cancer antiserum obtained from immunized rats the embryonic tissue and the various normal epithelial tissues continued to grow vigorously, whereas the mouse cancer cells were killed within twenty-four hours.

Simultaneously with these experiments with mouse cancer cells Lumsden carried out similar experiments with rat cancer cells in which he employed normal rabbit serum and an antiserum obtained from rabbits which had previously been immunized against rat carcinoma tumors following the method given above. In all of these experiments Lumsden found that the effects of the anti-rat-carcinoma serum on rat carcinoma cells fully coincided with the results obtained in the use of mouse-carcinoma cells in the foregoing experiments.

5. The Work of Warburg—Dr. Otto Warburg of Berlin has demonstrated experimentally that a cancer cell is physically and chemically unlike a normal cell, and has shown that when carcinoma tissue is grown in the presence of grape sugar it behaves like a yeast[12]. He found that when rat carcinoma tissue is grown anaerobically in the presence of grape sugar the tumor tissue, by glycolysis, produces its own weight of lactic acid every eight hours; when this tumor tissue is then grown aerobically the glycolysis is reduced, but does not disappear. Normal animal tissues when grown anaerobically produce an excess of acid which they are able to destroy under aerobic conditions, while cancer cells cannot do this. Embryonic tissues, when grown under aerobic conditions in the presence of grape sugar form no lactic acid, while human carcinoma tissue, when grown anaerobically in the presence of grape sugar, produces about sixteen per cent of its own weight of lactic acid each hour.

6. The Work of Fischer—Dr. A. Fischer, of Copenhagen, has been able to grow the cells of the Rous chicken sarcoma in serum from chicks to which has been added fresh embryo juice[13]. With inoculations of this culture he has produced sarcoma in chickens. Fischer has observed that when a piece of muscle is added to this serum the sar-

coma cells invade the muscle and destroy it; normal cells do not do this.

7. The Work of Gye and Barnard—In the London Lancet for July 18th, 1925, Dr. W. E. Gye and Mr. J. E. Barnard published papers demonstrating the presence of a living micro-organism in cultures obtained from the filtrates of neoplastic tissues[14¾,½].

Mr. Barnard's article deals with photographing the ultra-microscopic micro-organisms cultured by Gye from neoplasms. Barnard employs a highly specialized and complex apparatus, and is able to show by dark-ground illumination and ultra-violet microphotography the presence of colonies of "spheroidal bodies" from the sides of which buds or "particulate bodies" develop. We believe that these ultra-microscopic bodies of Gye and Barnard are filterable phases in the complex life history of the micro-organisms of sarcoma and carcinoma.

In reviewing Gye's paper we shall mention only his most important deduction. On reading the paper, one is first struck with the ingenious manner in which he has come to the important conclusion that to produce a growth two factors are necessary, viz:—(1) a micro-organism which is common to all varieties of malignant growths, and (2) a chemical substance or "specific factor" which varies for each species of animal. As stated above the micro-organisms were seen and photographed by Barnard, so that their presence has been established. The existence of the "specific factor" is a plausible hypothesis, but we believe that the method employed by Gye to prove the existence of the "specific factor" is open to criticism. Our reasons for making this statement will be given in another paper when we have had more time to repeat and extend our experiments.

8. The Work of Rath—The Zeitschrift fur Angewandte Chemie of July 23rd last, published a communication from Dr. Rath, in which he reports the isolation of a similar micro-organism from human and animal carcinomata[15]. His work covers experiments with various types of carcinoma; strict aseptic precautions were followed throughout the work, and Rath states that the fact that the micro-organism originated from within the tumors cannot be questioned. The organism was cultivated on agar and on bouillon from carcinomatous tissues of the breast, face, skin, uterus and liver after the tissues had undergone a definite chemical process. The presumable effect of this process is the removal of investing membranes or coverings enveloping the micro-organism and thus allowing its experimental cultivation. From the same tissues no micro-organism could be cultured previous to the exposure to this definite chemical process. Several days old pure cultures of the micro-organism show short, spore-forming bacilli which were observed to be subject to morphologic changes while growing thus in pure cultures. Substances having the odor of lower fatty acids developed during the growth of the micro-organism. Based on the fact that he produced many neoplasms of a carcinomatous character in various animals by the inoculation of pure cultures of this organism, Rath believes that he is justified in concluding that this micro-organism is the etiologic factor in carcinoma rather than that it takes the miner role of any associated phenomenon in the production of carcinoma.

CONCLUSIONS

1. Carcinoma is a specific infectious disease due to a pleomorphic micro-organism isolated by Glover and by Young. The work of Glover has been repeated and confirmed by Dr. M. J. Scott and ourselves.

2. The Glover micro-organism is a filter-passer in at least one stage of its life-cycle.

3. The micrococcus of Nuzum appears to be a phase in the life history of the organism of Glover and of Young.

4. Lumsden has shown that an effective antiserum specific for various cancer cells in vitro and for rat sarcoma in vivo is obtained from animals of a different species after they have been immunized against the tumor by repeated inoculations of the cancerous cells.

5. Warburg has cultured human and rat carcinoma tissues and has shown that they differ strikingly from normal tissues.

6. Fischer has cultured Rous chicken sarcoma cells and has shown that they differ essentially from normal cells.

7. The spheroidal and particulate bodies demonstrated in sarcomatous filtrates by Barnard and Gye we believe to be the filtrable phase in the life history of the micro-organism responsible for the production of sarcoma.

8. Rath has isolated a similar micro-organism from human and from animal carcinomatous tissues which shows morphological changes when grown in pure culture.

9. The clinical work of Glover and his associates shows that a therapeutic antitoxin of great value in incipient and in post-operative cases has been produced.

10. The future treatment of cancer and other malignant growths will be a prophylactic inoculation of a diluted toxin in a manner already employed by Glover in animals and in humans.

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A CASE OF AMAUROTIC IDIOCY (JUVENILE FORM)*

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The juvenile form of amaurotic family idiocy is an uncommon disease and since this case has an interesting family history, it is added to the literature.

Thomas[1] describing this type, says: "Pelizaeus has described a condition coming on in older children, which somewhat closely resembles amaurotic family idiocy; it has also been described pathologically by Merzbacker. The disease has been called aplasia axialis extracorticalis congenita, is rarer than the amaurotic idiocy, and generally appears at about three years of age. The children live longer than in the form just described (infantile form), and may attain adult life. They are optic atrophy and blindness, but no red spot in the macula develops. There is also a progressive spastic cerebral paralysis, which is diplegic in distribution. These cases show a widespread change, chiefly of the axis-cylinders, and are thought to be due to a congenital defect of formation or agenesis of the axis cylinders, especially of the long extra cortical association fibres, while the familial or sachs type is rather a primary cellular degenerative process. Nystagmus and tremor are frequently symptoms in the Pelizaeus type; they are not in the familial type." Vogt[2] and Spielmeyer[2] also described this type several years ago. K. Schaffer[3] concluded that in the infantile form a primitive ape-like cyto-architecture of the cerebral cortex exists.

CASE REPORT

The patient, a boy, aged 3½ years, was the youngest of four children. His parents were born in Roumania of Jewish extraction and have been in the United States 15 years. The cost this family has been to the community is shown by the fact that while in New York they were known to the United Hebrew Charities, and during the time they lived in Detroit, they have been known to the United Jewish Charities, the Department of Public Welfare, Harper Hospital, the Legal Aid Bureau, Children's Hospital, Department of Public Health, North End Community Clinic, and the Wayne County Psychopathic Clinic. Since 1913, the United Jewish Charities have contributed $500, and the Department of Public Welfare of the City of Detroit have contributed $990. In addition to the relief given, they have received free medical care from Receiving, Herman Kiefer, Harper, St. Marys, and Children's Hospitals, and the Department of Health.

The father and mother were referred to the Wayne County Psychopathic Clinic in April, 1917. The report of Dr. A. Jacoby, the Psychiatrist, in regard to the father was, that he, "showed marked simplicity of thought and judgment and his general reaction leads to the opinion that he is feeble-minded. He offered enumerable somatic complaints of hypochondriacal nature. The prognosis is very bad and we suggest that he be committed to an institution permanently." In regard to the mother, Dr. Jacoby reported that she was feeble minded and that "the condition is further complicated by the possibility of an induced psychosis." He also recommended her for committment.

On March 17, 1925, the oldest boy was examined because of the known mental condition of his parents. He was in the A8 grade and there received an International Atlas and Dictionary as the champion speller of the school for 1925. He likewise became the District champion. His examination showed a "chronological age of 14 years and 7 months, mental age of 9 years and 2 months. Intelligence quotient 63; memory poor, comprehension fair, attention fair, and association good. No marked psychiatric abnormality noticeable." His excellent ability as a speller brings up interesting points in regard to the effect of familial psychosis to precociousness in a single phase of endeavor. The second child, a girl, had a chronological age of 12 years and 8 months; mental age 9 years and 8 months: intelligence quotient 76. The third child, a boy, aged 6 years, showed an evident mental subnormality (Mental hygiene Dept.) The fourth child was the patient. Birth had been normal. At about six months of age the mother noticed that his eyes were moving constantly. Nothing was done about it until March, 1925, when he was brought to the Out-Patient Eye Department, and later referred to the Medical Department. Physical examination revealed an undersized, poorly nourished boy; weight 31 pounds, height 36½ inches; skull circumference 19¼ inches. The outstanding features were the small stature, the microcephalic head, the spasmodic jerking of his head resembling somewhat choreiform movements. There was a marked spontaneous horizontal hystagmus, when apparently looking straight ahead. Strabismus was quite marked. The eye report (Dr. G. Frothingham) is as follows:— Both irises are absent. There is congenital horizontal nystagmus and defective vision. Ophthalmoscopic examination shows discs smaller and whiter than usual. Veins seem somewhat tortuous. Blurring extending from the edges of discs." The nose was full of muco-purplent discharge. The teeth were slightly notched. A high arched palate was present. Tonsils were very large and the cervical glands were enlarged. Thyroid not palpable. Lungs negative. Heart, a soft pulmonic systolic murmur present. Abdomen somewhat "pot bellied" otherwise negative. Gen-

*From the Out-Patient Medical Department of Harper Hospital.

itals normal for size. Epitrochlears negative. With the exception of sluggish patellar reflexes no other change in reflexes was found. From a mental standpoint the boy was markedly subnormal. His facies was that of a feeble-minded child. He presented a pathetic looking picture with his small stature, microcephalic head, nystagmus, absent irises and open mouth. Co-operation was poor. During several examinations he never once uttered an intelligent word, but whined a great deal. His photograph will convey more than any description of his appearance I could give.

LABORATORY REPORTS

Blood Wassermann negative; urine negative. Blood count—red blood cells 4,490,000—white blood cells 3,900. Hemoglobin 85 per cent. Polymorphonuclears 24 per cent; lymphocytes 72 per cent; eosinophiles 4 per cent.

X-RAY REPORT

"Plates of the head show evidence of either increased intracranial pressure or old rickets. The sella is small in the anteroposterior diameter, but has normal depth. A plate of the chest is negative for evidence of thymus enlargement." Dr. Wm. A. Evans.

COMMENT

A case of amaurotic family idiocy of the juvenile type is reported in which both parents were feeble-minded and their four children were mentally subnormal. The oldest child showed a precociousness in spelling, while the youngest child was an idiot of the juvenile amaurotic type. These facts would seem to be an effective argument for sterilization of the feeble-minded.

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PRE-OPERATIVE TREATMENT IN PROSTATECTOMY*

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DETROIT, MICHIGAN

Preparation is the keynote to the successful termination of a prostatectomy, and that is where the great advance in prostatic surgery has been effected in the last ten or fifteen years.

Not every old man with an enlarged prostate comes to operation. It is where there is obstruction that operation is demanded. Obstruction may be gradual, or it may be sudden. The slow evolution of the various methods employed for the relief of prostatic obstruction has brought us to the point where we are agreed that the object in view is the removal of the obstruction, so far as this is possible. Our most satisfactory results are obtained in the adenomatous enlargements. The indication here is to remove the prostate. Various contra-indications to this operation have been brought forward, and rightly so, in view of the manner in which the operation has often been performed in the past. The present technic of prostatectomy, the step by step method, has removed many of these contra-indications. During the past few years, patients have been carried through this operation and placed upon their feet, with urinary system properly functioning, whom formerly I would have looked on as sure mortalities, and I believe a number of them would have been. If one has the greatest interest of the patient at heart, the first consideration in dealing with a pathological condition is, to relieve the lesion in such a manner that the patient's life will be preserved; second, that function will be restored; third, to accomplish such a readjustment in a way that entails the minimum of pain and inconvenience.

We do not have to go back many years to find speed of operation given as the greatest factor in the success of the removal of the prostate.

Formerly it was thought that this pathologic condition, which has slowly progressed, often over a period of years, and which had resulted in interference with the working of a system whose function it is to eliminate poisons from the body, the progress of such pathologic condition endangering the immediate organs involved and poisoning the entire system, must be relieved by an operation which, if not performed at once, and if not executed in a few minutes, would certainly eventuate in death. This is not logical. A condition arrived at through the slow progress of a pathologic entity with far-reaching complications, cannot be relieved at once. The time necessary for its relief will be more or less in proportion to the time involved in the culmination of the pathologic process in the final condition. We often hear advocated a two-step prostatectomy, but personally I do not care how many, or how few steps there are. I prefer the term, "step-by-step prostatectomy," the number of steps to be employed in a given case to be determined by the conditions met in that case. The objects in view are as few shocks as possible during the readjustment, and a live patient at the end.

The outcome of any major operative proceedure depends largely upon the general physical condition of the patient. The prostatic has usually reached the age of declining vigor, and in addition to this, certain changes in the vascular, digestive and renal systems are always present in varying degree, depending on the stage and duration of the urinary obstruction. Much depends upon a complete diagnosis. Certainly, from a standpoint of mortality, the odds are in favor of the operator who proceeds with

*Read in a symposium at the regular weekly meeting of the Surgical Section of the Highland Park General Hospital, October 22, 1925.

a full knowledge of the conditions which are responsible for his patient's symptoms, rather than the one who knows only that some obstruction of the urinary tract associated with an enlargement of the prostate, which has been determined by rectal examination only, is present.

Diagnostic procedure should include first of all a complete case history. Inquiry should be made especially as to the previous existence of renal, or vesical disease. It should be determined whether specific urethritis, which may have resulted in urethral stricture, or prostatic infection has occurred.

Any previous urinary disturbance should be noted. During the general physical examination, the surgeon should be able to form an opinion as to the general vigor of his patient; special attention being given to the lungs and heart, the blood pressure, condition of heart muscle, nervous system, etc., being on guard especially for the presence of spinal cord disease.

The question often arises as to whether or not a thorough diagnostic procedure should be carried out in a particular case before operation. This, of course, is largely a matter involving the personal judgment of the surgeon in any given case. No exact rule can be applied. It is safe to say, however, that as far as the physical condition of the patient will permit, complete preliminary examination and diagnosis should be insisted upon, with the possible exception of cystoscopy, which, though often desirable, is frequently not indicated.

These are old men, varying in age from the seventh to the tenth decade, and excretion is poor. The prime indication with these patients is to improve elimination. The first consideration is to prevent absorption from the bladder and to relieve the kidneys; the next is to promote elimination in other systems which are laboring under the unusual amount of work thrown upon them. To prevent further absorption from the bladder, and to relieve the kidneys of back pressure, drainage of the bladder is indicated. Too sudden institution of this measure is often disastrous. I have seen patients in a uremic state for days following a complete emptying of the bladder at one sitting by catheterization, and I have often observed this after suprapubic drainage when retention of urine has been complete or incomplete, but of long standing.

In a patient with retention, carrying over six ounces of residual urine, the bladder is never emptied at the first examination, if he has not been catheterized before. In those free from infection, the patient is seen several times, a number of days apart, draining off a little more each time. With a markedly over distended bladder, as long as two weeks have been allowed to elapse before completely emptying the bladder. During this time observations are made and records kept of the blood chemistry. This not to the exclusion, of course, of other clinical data such as blood pressure, urinary output, etc. The blood chemistry, however, is the chief criterion as to the rapidity with which we may proceed in this readjustment of the patient's physiology. And I wish right here to state as emphatically as possible, *uremia follows haste* Remember that these patients are mentally, organically and many times clinically fatigued and we have to do everything we can to fortify that situation.

There are few cases that cannot be catheterized by using a local anesthetic in the deep urethra, by employing the proper type of catheter for the individual case, and by exercising care and patience in manipulation. When the catheter has been introduced, it should be retained, that is, fastened in, and the urine drawn off slowly, a little at a time, replacing part of the bulk at each sitting with boric acid solution, finally emptying the bladder. The catheter should be retained until the patient shows no signs of uremia; a suprapubic drainage may then be established. Even after such careful catheter drainage, this step will often result in a decided return of uremic symptoms showing that suprapubic drainage is more complete than that by urethral catheter.

Suprapubic cystotomy, is however, the most dangerous step in the course of this whole affair. It is after this, and not after the enucleation of the prostate, that the mortalities occur. A preliminary cystotomy proves often to be the last resort from which these patients do not rally, and too, because of haste. Frequently when the blood chemistry and the phenol-sulphonephthalein excretions are not changed by urethral catheter drainage, a suprapubic cystotomy is followed in a few days by a marked increase in phenol-sulphone-phthalein output, and a drop in blood retention of non-protein nitrogen and creatinine.

Patients with incomplete retention, or those who have been accustomed to catheterization may usually, I say usually, be drained at once suprapubically. It is entirely possible to establish suprapubic drainage without completely emptying the bladder at the time the drainage is established. In fact, the bladder may be emptied a little at a time in exactly the same manner as by urethral catheter.

Suprapubic drainage is carried out preferably under local anesthesia, which does not interfere with the intake of foods and fluids. The bladder is filled with fluid until it comes high in the wound and the placed catheter clamped. The incision is made to the bladder and the peritoneal fold is carefully raised. Two guy sutures are inserted high in the bladder, the catheter clamp removed and the fluid drained off. Between these sutures, by which the bladder is

steadied, it is opened by tearing a hole with a sharp pointed pair of artery forceps. The Pezzer catheter is quickly inserted, being stretched over an introducer. As soon as the mushroom is in the bladder and the catheter is released from the introducer, it is clamped. The tube completely fills the opening in the bladder wall, and there need be no leakage alongside. The guy suture may now be tied in such a way as to insure a tight enclosure, and the clamped off catheter can be released from time to time, as much or little urine as desired be allowed to escape. While bringing the patient to this stage, much may be accomplished by giving fluids by mouth and by rectum in as large amounts as can be assimilated. Free elimination by the intestinal tract is important. A laxative for the upper tract and colon irrigations below, will maintain a free exit and prevent absorption. It is well to have the old man out of bed as much as possible, as this aids his circulation, gives him strength and improves his morals. A good appetite in the absence of distention is a fair indicator of the patient's condition. A high blood pressure is to be preferred to an abnormally low one.

The administration per rectum by drip method, of a solution of glucose with sodium bicarbonate, giving in as large amounts as the bowel will tolerate, will prove to be a valuable aid in maintaining a good circulation and renal condition, stabilizing the patient generally. The importance of blood transfusion is not yet properly valued and will, if employed often, be the one measure that will enable the surgeon to conduct a case to a successful issue. Renal function tests are important during this stage, while the patient is slowly acquiring a new balance.

The actual figures on blood chemistry, phenol-sulphone-phthalein output, and specific gravity are not as important as ascertaining the fact that a new level has been established, which shows little variation. When the new level has been established, as proven by repeated estimations, including a pretty constant blood pressure over a period of four or five days, if the tongue is clean and moist, if the patient takes nourishment in sufficient quantities and assimilates properly, one may enucleat the prostate.

CONCLUSIONS

1. While after care is important, pre-operative care is still more important.
2. Best results are obtained in the adenomatous type of prostate.
3. Uremia follows haste.
4. Speed rate is to be determined by general condition of patient, and laboratory estimations that are made at least every second day.
5. Gas-oxygen anesthesia is the one of preference.
6. There should be no fixed rule as regards either a one, two, or three step prostatectomy. The steps should vary in number as the individual case may demand.
7. The ordeal should not be considered as an operation, but a readjustment of the patient's physiology.

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SOME PROBLEMS OF THE MEDICAL PROFESSION*I

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Human suffering in one form or another has always existed and seems to be inseparably connected with life. Suffernig in another has always excited a feeling of sympathy in one and a desire to give relief to the sufferer. With increasing intelligence and the growth of knowledge, the causes of, and the means of affording relief from, suffering became better understood and there arose a group or class of individuals who devoted their time and attention to mitigating the sufferings of others. From this humble origin the modern physician has developed. As is well known, in early times those who ministered to the afflicted were actuated largely by sympathy or a desire to do good, and were possessed of a feeling of altruism which often had a religious basis, consequently little thought was given to the matter of compensation for services rendered, but remuneration was limited almost entirely to gratuities, or honoraria. This same practice prevailed to some extent even down to the last generation, when many doctors of the so-called "old school" seldom or never sent out bills, but were content to receive as compensation for their services whatever their patients were inclined to give. Anything beyond this was held to be unethical. Is it any wonder, then,

*Read before the 79th Annual Meeting, State Medical Society of Wisconsin, Milwaukee, September 16, 1925.

that a profession that for so many ages has inherited such a tradition, a profession born and bred in humanitarianism and altruism, a profession that by precept and practice has always been charitable, and, as it were, stood aloof from the commercial world, should have acquired so little knowledge of sound business methods?

Medical men devoting their lives to the pursuit of knowledge relating to the relief of human suffering developed a spirit of individual liberty which gave little thought or attention to other problems of life, and swept away by their altruism they have given freely of the results of their labor for the benefit of mankind. It is no wonder, then, that such a profession has been a ready tool in the hands of propagandists for the advancement of socialistic ideas and has fallen an easy victim of commercial institutions for the enrichment of their stockholders. Lawmakers the world over have recognized these frailties of the medical profession—frailties when viewed in the light of intelligent business principles—and have made use of them for personal advancement or for the furtherance of political ends. Medical men, by having these frailties appealed to, have frequently performed services voluntarily and without compensation which it was the plain duty of individuals themselves, or of the state, to provide for. Had the profession been less unsophisticated and had more thought been given to the ultimate harmful effects of such voluntary services on the welfare of the people as a whole, these errors would not have been committed. The fact that these services were given voluntarily, though thoughtlessly, has often been seized upon by lawmakers as an excuse for making them compulsory. In this way the medical profession during the past few years has done more for the advancement of socialism than anything that has been said or done by ardent proponents of this fallacy.

MISTAKEN CHARITY

This should not be interpreted as conveying the idea that the physician should not engage in benevolent, altruistic, and charitable works. On the contrary, there is a humanitarian side to the practice of medicine which no right-minded physician ever forgets, and no person who does not feel and appreciate this should engage in that profession. No one is called upon to do real charity more frequently than the physician, and be it said to his credit, no one responds more readily or more cheerfully. In addition to this individual charity, the physician should always do his duty as a citizen and take his part with others in all proper work of this kind, but there is a vast difference between the physician giving charity to the needy one who applies to him for such services and the giving of his time and energy to the public in a matter that it is the plain duty of the public to provide for. In matters of this kind, all other persons engaged in the work are suitably compensated for services, but the physician is expected to donate his. There is no question that many of the schemes of a socialistic nature along this line that have been promoted and fostered by the state, in which the physician either voluntarily or involuntarily has been brought into service, were much better for the welfare of the people if left undone. The physician should give more heed and study to matters of this kind and learn to discriminate between those things that are truly altruistic and those that are not.

It will be granted without discussion that the physician is an essential sociologic factor in the present day community, and that his business is the care of his patients' physical and mental conditions in health and disease, and that if he is to be successful in his work the conditions of modern civilization demand that it be conducted in accordance with sound business principles. Business, in its common and limited sense, means the particular line of work in which one is engaged as a means of a livelihood, but it also has a broader and more general significance, namely, the general principles which underlie the numerous transactions and exchanges that take place between individuals or organizations. Experience has shown that unless these fundamental principles be followed, disaster in one form or another is likely to result sooner or later. It is an oft-repeated saying and one with which most investment salesmen will agree that the doctor as a rule is the most gullible and unsophisticated of investors, and from what has been said the reason is quite obvious. The ancient traditions of his calling have made him altruistic; listening constantly to the complaints of his patients, which he accepts as true since they are seeking his services for their own benefit, he has become unduly credulous; always endeavoring to inspire hope and confidence in others, he becomes hopeful and confiding; knowing little of fundamental principles of business he seldom analyses propositions to see if they are sound; but accepts them with his credulous, hopeful, confiding, unsophisticated mind, often with disaster.

This is not said with the intention of offering offense, but simply to call attention to a bit of psychology which may help to explain some other frailties of the physician's mind when it comes to certain other matters that concern his own business. It will be assumed that every physician, naturally, wishes to be successful in his life's work. At the present time, in order that he may properly prepare himself for his work, it is necessary for him to invest not only considerable money, but also

many years of time and hard work, and if it be granted that the physician is a necessary, or even a desirable factor in the present-day social structure, it must be admitted that he is entitled to a fair return on his investment of capital and labor. The usefulness of a physician to the community in which he lives depends upon his knowledge and skill and his ability to keep up with the rapid advancements in his profession. In order to maintain himself at a proper standard of efficiency, it is necessary that he constantly add to his capital investment, and this he can do only if he receive sufficient remuneration for his services. Unfortunately, physicians frequently cut off their just returns by reason of their own follies.

OUR OWN FOLLIES

Attention will be directed to two ways in which this is brought about. In the first place, physicians are shirking their work and lose many patients, and often considerable income, by referring too many cases to commercial laboratories, etc., to do those things which they themselves should do. Many of these laboratories are owned and conducted by laymen for purely commercial purposes, and the ethics of the profession are not always respected. Most of the ordinary examinations and tests necessary to a correct diagnosis can, and should be, made by the physician in his own office. If he is too busy to do this work himself he is busy enough to have an assistant to do the technical work for him, but he alone should judge of the import and value of the findings co-ordinated with the history and physical examination of the patient.

Any physician who sends a patient to one of these laboratories to have an ordinary urinalysis made is not only losing a fee to which he is entitled, but is running the risk of losing the patient as well, for many patients sent to such laboratories fail to return to the doctor. The next time that patient thinks he should have his urine examined, he does not go to the doctor, who, he thinks, will simply send him to the laboratory, but he goes directly to the laboratory for the examination, and while there the suggestion is frequently made that he have a blood examination, or some other test made, and some laboratories go so far as to send word to those whose urines have been examined by them that for a specified sum per annum they will examine the urine as often as is necessary and will advise the patient as to what should be done for any abnormal condition that may be found. This means not only a financial loss to the doctor, but also the loss of confidence in the doctor by the patient. If a doctor is not able or willing to make the ordinary tests and examinations which every doctor should do for a diagnosis, but has to send the patient to a commercial laboratory, he should expect that the patient will soon reason, and not illogically, that he might as well go to a laboratory at once for a diagnosis, and many are doing just this thing.

There are a few tests, of course, that cannot be made outside of a laboratory, but the doctor should be careful not to patronize any laboratory that furnishes reports directly to the patient. Again, there are laboratories that advertise to give all kinds of serologic and injection treatments, which should be given only by the physician himself, or under his immediate supervision and, unfortunately, there are physicians who send patients to such laboratories for these treatments and receive a commission, or a division of the fee from them for the work thus referred, of course a dishonest and reprehensible practice. These laboratories are constantly encroaching on the field of the practice of medicine to the direct loss of income and prestige of the physician, a condition for which the physician alone is responsible.

COMMERCIALIZED MEDICINE

The next matter to which attention is directed is the increasing number of commercial organizations, stock companies created ostensibly for the purpose of making periodic health examinations or special examinations and tests, but all of them practicing medicine to some extent in one form or another. The claim is made by some of having an altruistic basis, but the payment of dividends on stock outstanding belies these claims. By appealing to the altruism of the profession with the usual sophistry, many medical men have been induced to lend their aid to these institutions not realizing that the money which went to pay the dividends to the stockholders came out of their own pockets. Commercial organizations furnishing periodic health examinations cannot exist without the aid of the medical profession and it is a curious bit of psychology that blinds the medical man to the fact that a corporation is getting the money for the work which he does. The physician makes a thorough physical examination of an individual sent to him by the corporation, makes out a complete report and sends it to the home office. The corporation pays the physician a small nominal fee for doing the work and then charges the individual examined a much larger sum for transmitting to him the results of the examination. It would seem that nothing but a childlike lack of ordinary business judgment would permit one to thus sell for a mess of pottage valuable services which another turns into gold. If the physician's examination and report have any value, he is entitled to receive for them what they are worth. It is pure sophistry to claim that their worth is increased by being passed through an office,

perhaps a thousand miles away. In fact, the value of the examination to the patient is much greater when communicated to him by the physician who makes it and who has thus come in direct contact with the individual than it can possibly be when passed through an absent third party. Hence, by the corporation method the patient fails to receive full value for the money paid to the corporation, and the doctor fails to receive proper compensation for his services. But the monetary loss to the physician and to the patient is not the only loss sustained by this kind of corporation practice. There is the loss of that personal relationship between physician and patient which is of so much importance to the welfare of the latter. The claim is made that such corporations act as an intermediary between the patient and the physician. When it becomes necessary for an intermediary or a runner, to act in order to bring the patient and the physician together, the physician has lost his independence and self-respect, and the decadence of the profession is assured.

THE REMEDY

These in brief, are some of the baneful influences that are operating today to rob the profession of its influence, its independence, and its income. We should remember, however, that they are due largely to the frailties and follies of the physician himself, and that the remedies lie in his own hands. If these influences are to be counteracted, physicians must be qualified and willing to give the high grade of personal service to which the patient is entitled. They must evince that same benevolent, altruistic, and charitable spirit that has always characterized the profession, but they must show commercial organizations that are making tools of them for profit that they will conduct their professional matters on sound business principles.

* * *

I:—The above article is lifted from the Wisconsin State Medical Journal. It contains so much food for thought that to abstract it would be to lose the application of the points made. Dr. Harris has set forth our problem, he has advanced the remedy—will the profession apply it?—Editor.

HEALTH IN RELATION TO CITIZENSHIP IN URBAN AND IN RURAL COMMUNITIES

John A. Ferrell, New York (Journal A. M. A., Aug. 15, 1925), summarizes his paper as follows: Public health is one of the major community interests. Community funds wisely used for health service yield large returns. The scope of the health service will vary with problems, resources and the public conscience, but in all cases should include basic activities. In the interest of economy and efficiency, the political unit should be large enough to permit the employment of a well rounded unit of trained full-time personnel. The cost of the service should be assumed jointly by the state, county and towns on an equitable basis. The rural community is economically handicapped, so that unaided it cannot finance health and other services approaching in adequacy that of urban communities. It is being abandoned to an alarming degree. The urban community cannot enjoy its present prosperity and civic advantages indefinitely unless its outlying country which furnishes foods, raw materials and markets is afforded similar advantages. The urban and rural communities have a common interest in the equalization of taxation and also of facilities for health and for educational, social and economic welfare. This should be accomplished through the larger political unit, such as the state. Experience in this direction has been encouraging. The plan should be extended.

THE JOURNAL

IS

YOUR FORUM—

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ON

MEDICAL SUBJECTS

PUBLIC HEALTH ACTIVITIES

Edited By

MICHIGAN DEPARTMENT OF HEALTH

NEPHRITIS

Nephritis was first described early in the nineteenth century by Richard Bright, a physician, and the term Bright's disease is used quite as frequently as nephritis and may be regarded as synonymous.

In the consideration of nephritis we are dealing with a disease entity which frequently is accompanied with the breaking down, or at least with the disturbance of other organs, the most common of which is represented by the cardio-vascular-renal syndrome.

The most common single contributory cause is some form of organic heart disease and in some cases this cause is preferred, but in each case assignment to causes has been made in accord with the practice followed by the United States Bureau of the Census.

This article does not include those cases in which nephritis is given as a contributory cause to some other condition which, according to the rules of statistical practice would take the assignment rather than nephritis.

Michigan had a death rate from nephritis of 61.0 per one hundred thousand population for 1923, and 56.4 for 1924. These rates have been steadily falling for the past few years. The apparent reason for this is earlier recognition of the disease and better medical practice, but we must also consider as an element a better control of acute communicable diseases resulting in a decreased incidence or decreased virulence, as it is well known that these acute diseases and particularly scarlet fever, frequently result in an impairment of the kidneys with a lowered resistance to organic disturbance in later life. Then, too, the general education of the people and better habits of living must be regarded as factors.

The rate for Michigan has been continuously below that of the registration area of the United States, as shown by the following table, No. 1, which shows the rates for 1914 to 1922 inclusive, the last year in which the figures for the United States registration area are available.

TABLE No. I.

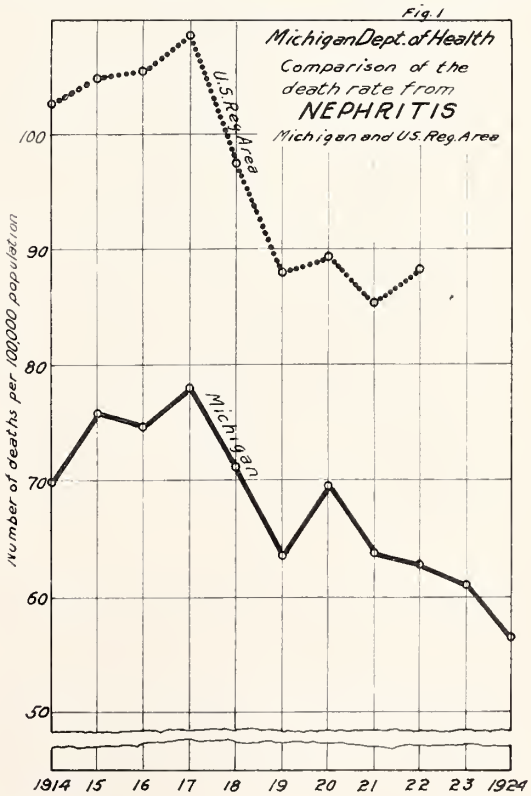
Death Rates from Nephritis for Michigan and the United States Registration Area.

Year	Number of Deaths per 100,000 Population Michigan	U. S. Registration Area
1914	69.8	102.6
1915	75.1	105.1
1916	74.7	105.6
1917	77.8	107.9
1918	71.0	97.6
1919	63.5	88.1
1920	69.5	89.4
1921	64.0	85.4
1922	62.9	88.5
1923	61.0	.....
1924	56.4	.....

This table is illustrated in Figure 1.

More rural than urban people die of nephritis. In 1924, of the 2,194 deaths from this disease, 41 per cent were rural, as opposed to a rural population of 38 per cent, and 59 per cent of the deaths were urban, and the urban population is 62 per cent. By urban we mean they were residents of villages or cities with a population of 2,500 or more. No explanation is offered for this showing, but a little thought will suggest many elements which might affect it.

More males than females die of this disease, but Michigan has an undue proportion of males in the population. The ratio indicates that the



rate for the sexes was about the same, 53 per cent of the deaths were males to 52.5 of the population, and 47 per cent of these deaths were females to 47.5 of the population.

Age is a most important factor. The greater number of deaths are found in the age group seventy-five to seventy-nine, but deaths do oc-

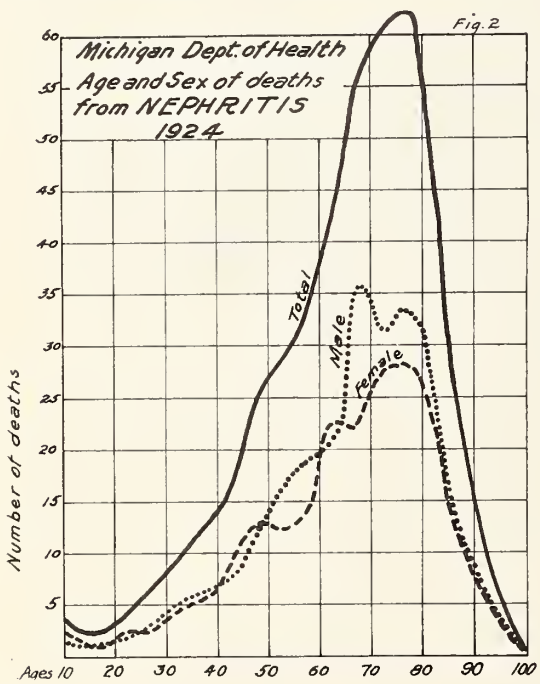
cur in every age group above ten years. The following table shows the ages by sex.

TABLE NO. II.

Showing the Age and Sex Distribution of Deaths From Chronic Nephritis in Michigan, in 1924

Ages	Males	Females	Total
10-14	5	9	14
15-19	6	5	11
20-24	11	13	24
25-29	14	12	26
30-34	30	25	55
35-39	31	26	57
40-44	36	43	79
45-49	64	69	133
50-54	80	58	138
55-59	98	68	166
60-64	96	119	215
65-69	177	107	284
70-74	155	139	294
75-79	171	143	314
80-84	122	108	230
85-89	56	55	111
90 and over	21	22	43
	1,173	1,021	2,194

A better understanding of this will be found by the examination of Figure 2. Here the mode



is found in the group seventy-five to seventy-nine, the curve rising rapidly to this point and then falling abruptly until extinguished. The male curve is irregular and is bimodal in shape, the mode being found in the age group sixty-five to sixty-nine and a second rise appearing at seventy-five to seventy-nine. The female curve is more irregular, but the mode is in the group seventy-five to seventy-nine, as in the total curve, but the group sixty-five to sixty-nine which shows the mode in the male curve shows a marked drop in the female curve.

The age distribution of the rural and urban deaths would be rather interesting if we were able to tell the relative age distribution of these two elements, but as the census reports do not give this information, it is thought best to omit this comparison, as it would be misleading.

In considering the contributory causes of death, we find that 896, or 41 per cent do not give any contributory cause, but it must not be taken to mean that there was no contributory cause, but simply that there was none stated on the certificate of death. Frequently some condition which is symptomatic of the disease itself, such as uremia or albuminuria are stated as contributory causes, but as these conditions are not contributory, but rather symptomatic of the disease, they are not regarded as contributory causes. Many physicians regard contributory causes, which frequently or commonly occur in a disease, as a part of the disease entity and therefore do not feel it necessary to declare it when certifying to the cause of death. So, we may conclude that this number of 896 represents a percentage of deaths in which there was no *unusual* development in the progress of the disease, as well as those deaths in which there were no complications.

In 1,298 deaths, representing 59 per cent of the group under observation, some contributory cause was stated, the frequency of the various causes being shown in Table No. III. That

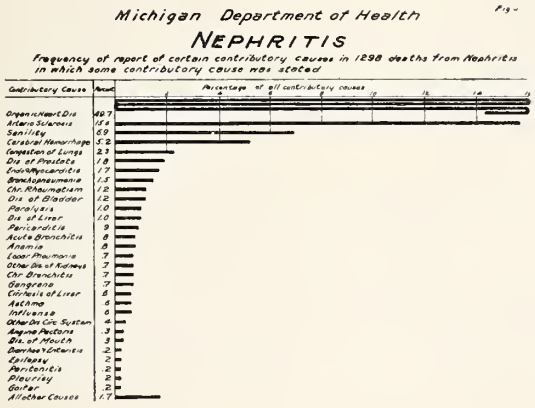
TABLE NO. III.

Showing frequency of report of certain contributory causes in 1,298 deaths from Nephritis in which some contributory cause was stated.

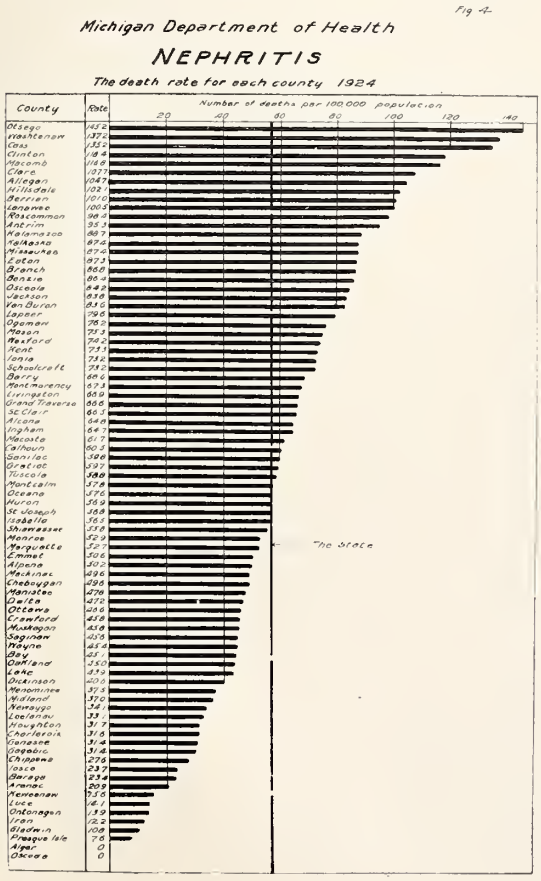
Cause	Number	Per Cent
All Contributory Causes	1,298	100.0
Organic Heart Disease	645	49.7
Arteriosclerosis	203	15.6
Senility	89	6.9
Cerebral Hemorrhage	68	5.2
Congestion of Lungs	30	2.3
Diseases of Prostate	23	1.8
Endocarditis and Myocarditis	22	1.7
Bronchopneumonia	19	1.5
Chronic Rheumatism	15	1.2
Diseases of Bladder	15	1.2
Paralysis	13	1.0
Diseases of Liver	13	1.0
Pericarditis	12	.9
Acute Bronchitis	11	.8
Anemia	10	.8
Lobar Pneumonia	9	.7
Other Diseases of Kidneys	9	.7
Chronic Bronchitis	9	.7
Gangrene	9	.7
Cirrhosis of Liver	8	.6
Asthma	8	.6
Influenza	8	.6
Other Diseases of Circulatory System	5	.4
Angina Pectoris	4	.3
Diseases of Mouth	4	.3
Diarrhea and Enteritis	3	.2
Epilepsy	3	.2
Peritonitis	3	.2
Pleurisy	3	.2
Goitre	3	.2
Other Causes	22	1.7

Included in the item "other causes," are two cases each of, Other Diseases of Nervous System and Scarlet Fever (Remote), and one case each of Other General Diseases, Hemorrhage, Typhoid Fever (Remote), Diseases of Stomach, Embolism, Hernia, Erysipelas, Disease of Nasal Fossae, Diabetes, Furuncle, Disease of Larynx, Diseases of Urethra, Purperal (Remote), Alcoholism. Indefinite four. This is illustrated in Figure 3.

organic heart disease should represent the most common contributory cause will not surprise medical men, as the relation of this disease to nephritis is classical. Many forms of heart lesions are represented in this group, but only those causes in which the nephritis is the preferred title according to statistical practice are shown.



It will be noted that many of the causes stated in this list may easily be direct sequela of nephritis, but they have been presented as stated on the certificates. A further study of



another group of deaths and preferably a larger group would be of interest as it would determine whether or not the concurrent incidence is accidental or persistent.

The geographical distribution is very interesting, the following table, No. IV, gives the rate for each county. It will be observed that the rate varies from 145.2 per 100,000 population in Otsego county to 7.6 for Presque Isle county and that two counties, Oscoda and Alger, had no deaths. The bar diagram, Figure 4, compares these rates in order of magnitude. In forty-five of the counties the rate was in excess of the rate for the whole state and in 38 counties it was below.

It is to be regretted that the data relative to contributory causes is not more easily available for a period of years, but the newer methods of compilation will enable a study such as this to be continued with the coming years and it is hoped to render a service not only to those in the practice of medicine, but through them to all mankind.

TABLE NO. IV.

Death Rate from Nephritis
Per 100,000 Population by Counties for 1924.

The State	56.4	Gd. Traverse	66.6	Midland	37.0
Alcona	64.8	Gratiot	59.7	Missaukee	87.4
Alger	.0	Hillsdale	102.1	Monroe	52.9
Allegan	104.7	Houghton	31.7	Montcalm	57.8
Alpena	50.2	Huron	56.9	Montmorency	67.3
Antrim	95.3	Ingham	64.7	Muskegon	45.8
Arenac	20.9	Ionia	73.2	Newaygo	34.1
Baraga	23.4	Iosco	23.7	Oakland	45.0
Barry	68.6	Iron	12.2	Oceana	57.6
Bay	45.1	Isabella	56.5	Ogemaw	76.2
Benzie	86.4	Jackson	83.8	Ontonagon	13.9
Berrien	101.0	Kalamazoo	88.7	Osceola	84.2
Branch	86.8	Kalkaska	87.4	Oscoda	.0
Calhoun	60.5	Kent	73.3	Otsego	145.2
Cass	135.2	Keweenaw	15.6	Ottawa	46.6
Charlevoix	31.6	Lake	43.9	Presque Isle	7.6
Cheboygan	49.6	Lapeer	79.6	Roscommon	98.4
Chippewa	27.6	Leelanau	33.1	Saginaw	45.6
Clare	107.7	Lenawee	100.5	Sanilac	59.8
Clinton	118.4	Livingston	66.9	Schoolcraft	73.2
Crawford	45.8	Luce	14.1	Shiwassee	55.8
Delta	47.2	Mackinac	49.6	St. Clair	66.5
Dickinson	40.6	Macomb	116.8	St. Joseph	56.8
Eaton	87.3	Manistee	47.8	Tuscola	58.8
Emmet	50.6	Marquette	52.7	Van Buren	83.6
Genesee	31.4	Mason	75.3	Washtenaw	137.2
Gladwin	10.8	Mecosta	61.7	Wayne	45.4
Gogebic	31.4	Menominee	37.5	Wexford	74.2

W.J.V.D.

AN EPIDEMIC OF DIPHTHERIA

A group of ten cases of diphtheria occurring in a village of not more than one hundred persons was recently investigated. The local physician had been called in to attend the first case, but as far as can be gathered, he overlooked the necessity of obtaining any information from the patient as to possible origin of infection, and failed to obtain throat cultures.

What followed is a history, and a typical one, of how an epidemic may be started. For the sake of convenience, the first case which occurred in the village will be referred to as Mrs. D and her history given.

Mrs. D visited in Detroit from August 22 to 29, staying with friends whose little girl had had diphtheria about three weeks previously, but who had been released from quarantine at the time of the visit. Mrs. D, four days after her arrival, developed a sore throat. No physician was called at that time, and she returned to her little community in a couple of days, where a local physician was called in attendance. A diagnosis of simple tonsilitis was made, consequently no precautions were taken to guard the immediate contacts or friends. Neither was any antitoxin given to the patient.

Mrs. D's child, a girl aged seven years, was allowed to continue in school and since the return of Mrs. D seven children in the school and three adults have contracted the disease. Here is a contact infection, par excellence, spreading among immediate associates in a small community.

All the cases of sore throat, when seen by the investigator, had been cultured and positive reports obtained on every one.

It is worth mentioning that Mrs. D now, after approximately one month of illness, has a typical post-diphtheritic paralysis of the soft palate and uvula with consequent nasal tone and regurgitation of liquids. A contact, a woman of forty-five, has developed a marked myocardial complication.

There can be no doubt in anyone's mind as to the diagnosis in these cases. Ten cases of diphtheria in a community of not more than one hundred persons—10 per cent of the population stricken with an entirely preventable disease.

—C.H.B.

The most notable feature of the October communicable disease report was the sharp increase in the number of typhoid fever cases reported. It will be recalled that typhoid fever is frequently a post-vacation disease, so that some rise might be expected, but an increase, much more than double the 1924 figures and considerably more than the average for five years, is certainly to be deplored.

Diphtheria shows a very satisfactory figure, being less than a year ago, and less than half the average.

Whooping cough, while showing a decrease from the previous month, is very much higher than the preceding year and comment has reached us from medical men of the very high virulence.

PREVALENCE OF DISEASE

October Report—Cases Reported

	September 1925	Oct. 1925	Oct. 1924	5 years Average
Pneumonia	185	337	197	264
Tuberculosis	632	353	428	439
Typhoid Fever	153	211	94	174
Diphtheria	225	476	504	1091
Whooping Cough	652	521	291	345
Scarlet Fever	353	667	833	935
Measles	70	160	324	260
Smallpox	17	13	56	105
Meningitis	9	12	11	10
Poliomyelitis	19	10	159	95
Syphilis	1444	1349	1233	838
Gonorrhea	1142	1093	1031	965
Chancroid	13	9	15	15

CONDENSED MONTHLY REPORT

Lansing Laboratory, Michigan Department of Health

October, 1925.

	+	—	+—	Total
Throat Swabs for Diphtheria				2584
Diagnosis	77	495		
Release	179	376		
Carrier	7	1404		
Virulence Tests	29	17		
Throat Swabs for Hemolytic Streptococci				931
Diagnosis	214	356		
Carrier	48	313		
Throat Swabs for Vincent's	41	527		568
Syphilis				12491
Wassermann	1147	5059	78	
Kahn	1212	4935	56	
Darkfield	3	1		
Examinations for Gonococci	211	1812		2023
B. Tuberculosis				455
Sputum	96	352		
Animal Inoculations	1	6		
Typhoid (Incl. Kalamazoo State Hosp.)				617
Feces	60	364		
Blood Cultures	9	60		
Urine	1	3		
Widal	52	66	2	
Dysentery				89
Intestinal Parasites				19
Transudates and Exudates				291
Blood Examinations (not classified)				422
Urine Examinations (not classified)				352
Water and Sewage Examinations				853
Milk Examinations				99
Toxicological Examinations				6
Autogenous Vaccines				15
Supplementary Examinations				595
Unclassified Examinations				348
Total for the Month				22758
Cumulative Total (Fiscal year)				80258
Increase over this month last year				3154
Outfits Mailed Out				16135
Media Manufactured, c.c.				640590
Diphtheria Antitoxin Distributed, units				33326000
Toxin-Antitoxin Distributed, c.c.				59620
Typhoid Vaccine Distributed, c.c.				9624
Silver Nitrate Ampules Distributed				8472
Examinations Made by Houghton Laboratory				2467

The Journal
OF THE
Michigan State Medical Society
ISSUED MONTHLY UNDER THE DIRECTION OF THE COUNCIL

PUBLICATION COMMITTEE
R. C. Stone, Chairman.....Battle Creek
C. D. Darling.....Ann Arbor
J. D. Bruce.....Saginaw

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Grand Rapids, Michigan

Entered at Grand Rapids, Michigan, Postoffice as second class matter.
Acceptance for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917, authorized August 7, 1918.

All communications relative to exchanges, books for review, manuscripts, news, advertising and subscriptions are to be addressed to F. C. Warnshuis, M. D., 4th Floor Powers Theatre Building, Grand Rapids, Michigan.
The Society does not hold itself responsible for opinions expressed in original papers, discussions, communications, or advertisements.

Subscription Price—$5 per year, in advance

DECEMBER, 1925

Report Malpractice Threats Immediately to Doctor F. B. Tibbals, 1212 Kresge Building, Detroit, Michigan.

Editorials

CHRISTMAS GREETINGS

This issue completes the last number of the present volume of the Journal. It also records the approach of another holiday season and terminates the Society's fiscal year. Introspective and reflective meditations are crowded aside in our daily lives by reason of the insistant demands that are made upon all of us. The passing days afford scant opportunity for self-analysis, for our places shift so rapidly in the scenes of life. By the decrees and customs that the years have established the Christmas holidays subdues our quest for personal profit and gain. While influenced by the spirit of good will that predominates, we may well pause awhile and ponder upon the changes that the year has wrought. Hence this editorial comment.

As a Society it has been the most achieving year in our history. This is evidenced by our broadened field of activity and the enlarged plans of organizational inclusiveness that sought the enhancement, to a greater degree, of the individual member's interests. We sought and attained a satisfactory degree of service to the people and discharged in no small measure our obligation to instruct and enlighten the public in regard to the fundamentals and truths of modern medicine. We have disclosed the manner in which health may be conserved and disease lessened. We have nourished the spirit of professional fellowship and inspired its dominency. In brief, we have taken a wonderfully successful advance stride in all our Society's legitimate avenues of endeavor. It has been an outstanding year that initiated a new organizational era which will carry us on to greater things in 1926.

And what about our members as individuals? You either did or did not profit. If you profited it was because you embraced the presenting opportunities. If you failed, it was because you were negligent, self-centered or mired in the rut of habit. Remember that the harvest you reap is dependent upon yesterday's sowing. Your tomorrow depends upon the seeds you sow today. Fate recedes as knowledge advances. Your prosperity, your freedom, is hedged in only by your personal limitations. It is only as you determine to rise superior to what is called destiny that you will ever achieve the greater ends. Life always will be, to a great extent, what we ourselves make it. So, too, will be your professional career, and in this day no man can attain a fullness of success in practice if he remains aloof or without the organizational fold, or fails to participate in his medical society's endeavors. The man who complained that an "ill-looking fellow" dogged his footsteps, discovered that it was his own shadow. We wonder how many of us have ever inspected the shadow we cast. We suggest that you do so before entering upon a new year. The point that we are seeking to establish is that as we individually respond to and meet up with our professional responsibilities, in that degree will we achieve the better things in life and in our profession. We can't stand still; we either progress or retrogress, and it is our own volition that determines our stride. Our Christmas wish is that all may find the inherent impulse and desire to forge ahead. That each may and will participate in the benefits that our Society can and will impart to its members during the coming year.

Included in that wish is the personal one that this Christmas will be a truly Merry one. That friendships may be renewed and that sunshine and joy enter through the chinks that time has made. We sum the thought with the hearty greeting—Merry Christmas To You All.

OUR ADVERTISING POLICY

From time to time we have directed our members' attention to our advertisers and have urged patronage of them because the advertising revenue received makes it possible to publish our Journal. Advertisers will not expend money for advertising space unless they

receive fair return upon their investment, and this return is orders and purchases by our members. Therefore, as these firms support and make possible the Journal, our members should, in a fair spirit of reciprocity and appreciation, give these business firms preference and place their orders with them.

Our advertisers are honest, reliable firms and business institutions. We accept only honest ads. Each firm, each advertisement, is investigated by the Co-Operative Medical Advertising Bureau of the American Medical Association. No ad is accepted or published that does not have the Bureau's approval and endorsement. We believe we are thereby giving to our members and readers a most reliable guarantee for their protection. With such an assurance we urge again that you confer your patronage to our advertisers and thereby help us to increase our advertising revenue. If we can be of further assistance, please command us and when a salesman comes into your office, ask him if his house is advertising in *your* Journal and, if not, may we recommend that you place your orders with those salesmen whose firms do. Here is an opportunity to help.

BETWEEN OURSELVES

President's Editorial

Your president considers it a privilege to express from time to time his personal opinions concerning things helpful one to another and to the medical profession in general.

If we wish to be as good as we say we are, or even as good as some of our patients say we are, we must be up and doing every minute. Every one of us could improve tomorrow when compared with yesterday. Medical science is on the jump and the people expect us to keep up, though now and then we do get frightfully behind.

One very important fact which will appear before us tomorrow is the new University Hospital. Flexner, in his book on medical education concerning hospitals and clinics, says, "The state universities in this matter are on the right track. The University of Michigan has long controlled in the interest of education a University Hospital ultimately supported by local taxation." As the present new hospital is the third in succession for the university to operate, we may be expected to accept it in the same spirit as we did the others. The first hospital was built to furnish clinical material for teaching purposes. The second was built in 1890 to continue this policy, but out of the management of this, the care of the sick was developed and the state began to pay for the care of certain cases.

"Michigan now has a hospital worthy of the great state and the great university it serves, huge—complete in every detail, adequate to the needs of the people of Michigan and the medical students who are to become its future physicians."

Thus the Michigan Alumnus, October 10th number, pushes out into the world the "New University Hospital completed." "Nowhere else in the country is there a hospital comparable, serving the same educational ends." To my mind the educational ends of this wonderful hospital will not be attained until it is prepared to teach all in medicine that can be taught in a medical school and a university hospital.

The people of this state, 4,000,000 in round numbers, have built this hospital because they believe in doctors. Soon 100,000 persons will visit this hospital yearly and those who are unable to care for themselves at home will remain for observation and treatment. There will be about 22,000 bed patients each year. To care for these and direct the teaching of students there should be a harmonious group of physicians, nurses, clerks, stenographers, etc., who have been taught the university spirit of loving to serve. A place where ideas purported to be for the good of humanity, may be worked out and discussed with a reverence for truth, where youth shall teach youth while the hoary professors check up or check out. Their duties will make them very busy men and women.

Every doctor in the state should make a pilgrimage to this hospital to get the bigness of its possibilities. When you walk down the long corridors leading to wards, or stand in the amphitheatre, you may have a desire to go to school again, the very thing that many of us should do. Clinics are arranged abroad every year, physicians attend them to receive a musty education from old hospitals.

Why not have these or better clinics at home in our own new hospital and have the best men in the world meet us here? May we not ask the board of regents, the deans of the graduate and the medical school to arrange courses, both clinical and laboratory, some of which were not possible before the building of the new hospital.

The University authorities are willing to admit through the Alumnus that this is the greatest hospital in the world. Let us help them to prove it.

C. G. Darling.

REPORT OF HEALTH EDUCATION LECTURES GIVEN UNDER THE DIRECTION OF THE JOINT COMMITTEE ON PUBLIC HEALTH EDUCATION—1924-25

The Michigan Public Health Education program was organized in 1921 and is carried on

through the University of Michigan Extension Division under the direction of the Joint Committee on Public Health Education. This committee consists of officially accredited representatives from the Michigan State Medical Society, University of Michigan, Michigan Department of Health, Detroit College of Medicine and Surgery, Michigan State Dental Society, Michigan Tuberculosis Association, Michigan State Nurses' Association, Michigan State Conference of Social Work, and the Wayne County Medical Society Committee on Public Education. The State Medical Society has five representatives on the Committee; the University of Michigan, four; and the other organizations represented, one member each.

Since the organization of this work it has grown steadily in scope and effectiveness, the number of lectures assigned during 1924-25 showing an increase of 22 per cent over the number assigned during the preceding year, and an increase of over 300 per cent over the number assigned in 1921-22.

The assignments for the past year, together with the average attendance per lecture and the total aggregate audience attending these lectures is shown in the following table:

Number of health lectures assigned to centers throughout the state outside of Detroit	209
Number of health lectures given in Detroit	122
Total number of health lectures assigned	331
Average attendance per lecture outside of Detroit	130
Average attendance per lecture in Detroit	170
Total attendance outside of Detroit	27,000
Total attendance in Detroit	21,000
Total attendance on all lectures assigned	48,000

These health lectures are given by a selected staff of speakers chosen by the Joint Committee and are assigned to schools, parent teacher associations, granges, industrial clubs, and other organizations throughout the state interested in public health. The lectures are given free of charge, each organization representing the Joint Committee taking care of the traveling expenses of its respective speakers. In the assignment of health lectures in 1923-24 in Detroit an attempt was made to have speakers appear before high school audiences which numbered in some cases as many as 3,000 students, as was the case, for example, in Cass Technical High school. This attempt to reach such large audiences, however, did not prove altogether satisfactory, and consequently during the past year (1924-25) student groups were broken up into sections. On the whole this plan has given very much more satisfactory results than that followed the preceding year.

In the following table there is given a list in alphabetic order of the centers throughout Michigan where health lectures were given during 1924-25:

Alger	Galien	Olivet
Alma	Grand Rapids	Otisville
Ann Arbor	Grant	Onsted
Atlas	Grayling	Owosso
Baraga	Hamburg	Paw Paw
Battle Creek	Hamtramck	Pentwater
Bay City	Hancock	Perry
Belleville	Harbor Springs	Petersburg
Benton Harbor	Hastings	Pierson
Berkeley	Hesperia	Pittsford
Berlin	Holton	Plainwell
Blissfield	Hopkins	Port Huron
Bridgewater	Houghton	Redford
Buchanan	Howard City	Richland
Byron	Howell	River Rouge
Cadillac	Ithaca	Rochester
Cedar Springs	Jackson	Roseville
Chelsea	Kalamazoo	St. Johns
Clifford	Kaleva	Saginaw
Climax	Lacota	Sand Lake
Constantine	Lawrence	Sandusky
Coral	Leslie	Schoolcraft
Croswell	Lima	Shaftsburg
Davison	Luther	Silver Lake
Deckerville	Mackinaw City	South Lyon
Detroit	Martin	Sparta
Dowagiac	Menominee	Spring Lake
Eaton Rapids	Milford	Traverse City
Eau Claire	Millington	Union City
Ecorse	Montague	Urbandale
Fenton	Mt. Clemens	Vermontville
Flint	Muir	Vernon
Flushing	Muskegon	Waldron
Fowlerville	Napoleon	Whitecloud
Frederic	Newaygo	Whitehall
Fremont	Newberry	Ypsilanti
Galesburg	Novi	

The following list contains the names of members of the speaking staff of the Joint Committee who, during 1924-25, gave one or more health lectures throughout the state:

A. Altshuler, M. D., Detroit.
A. D. Allen, M. D., Bay City.
Percy Angove, Lansing.
W. E. Bailey, D. D. S., Lansing.
Mrs. B. H. Bartlett, A. B., Ann Arbor.
Sinclair Battley, M. D., Detroit.
C. E. Boys, M. D., Kalamazoo.
C. D. Brooks, M. D., Detroit.
G. M. Brown, M. D., Bay City.
J. D. Bruce, M. D., Saginaw.
F. G. Buesser, M. D., Detroit.
Hugh Cabot, M. D., Ann Arbor.
M. D. Campbell, M. D., Detroit.
H. R. Carsten, M. D., Detroit.
J. T. Case, M. D., Battle Creek.
W. E. Chapman, M. D., Cheboygan.
W. R. Charles, Lansing.
J. L. Chester, M. D., Detroit.
David R. Clark, M. D., Detroit.
H. L. Clark, M. D., Detroit.
Ada P. Coleman, R. N., Grand Rapids.
F. A. Coller, M. D., Ann Arbor.
T. B. Cooley, M. D., Detroit.
A. W. Crane, M. D., Kalamazoo.
H. F. Crossen, M. D., Detroit.
H. H. Cummings, M. D., Ann Arbor.
F. E. Curtis, M. D., Detroit.
W. R. Davis, D. D. S., Flint.
Wm. DeKleine, M. D., Saginaw.
Marjorie Delavan, A. B., Lansing.
J. H. Dempster, M. D., Detroit.
W. T. Dodge, M. D., Big Rapids.
Douglas Donald, M. D., Detroit.
Chester A. Doty, M. D., Detroit.
C. F. DuBois, M. D., Alma.
W. J. DuBois, M. D., Grand Rapids.
C. W. Eberbach, M. D., Ann Arbor.
E. L. Eggleston, M. D., Battle Creek.
E. J. C. Ellis, M. D., Benzonia.

C. R. Elwood, M. D., Menominee.
R. D. Engle, M. D., Petoskey.
Elsie Erley, A. M., Ann Arbor.
A. F. Fischer, M. D., Hancock.
W. H. Fraser, Lansing.
Dona Gallor, Ann Arbor.
N. Ginsburg, M. D., Detroit.
W. H. Gordon, M. D., Detroit.
T. K. Gruber, M. D., Detroit.
Oswald Gruhzit, M. D., Detroit.
R. B. Harkness, M. D., Houghton.
Mary B. Haskins, M. D., Detroit.
Charles Heald, M. D., Battle Creek.
Robert Henderson, M. D., Niles.
W. D. Henderson, Ph. D., Ann Arbor.
W. C. Hirn, C. E., Lansing.
L. J. Hirschman, M. D., Detroit.
A. W. Hornbogen, M. D., Marquette.
Louise Howe, A. B., Ann Arbor.
G. Carl Huber, M. D., Ann Arbor.
Melita Hutzel, Lansing.
J. B. Jackson, M. D., Kalamazoo.
A. L. Jacoby, M. D., Detroit.
A. F. Jennings, M. D., Detroit.
W. W. Kahn, M. D., Detroit.
M. B. Kay, M. D., Detroit.
W. J. Kay, M. D., Lapeer.
R. M. Kempton, M. D., Saginaw.
C. S. Kennedy, M. D., Detroit.
J. B. Kennedy, M. D., Detroit.
G. L. Kiefer, M. D., Detroit.
Marie A. Kiernan, Lansing.
H. F. Kilborn, M. D., Ithaca.
Louis Klein, M. D., Detroit.
H. B. Knapp, M. D., Battle Creek.
F. J. Larned, M. D., Grand Rapids.
A. Leenhouts, M. D., Holland.
S. Levin, M. D., Houghton.
H. B. Lewis, M. D., Ann Arbor.
B. C. Lockwood. M. D., Detroit.
R. E. Loucks, M. D., Detroit.
Don C. Lyons, D. D. S., Jackson.
W. H. MacCracken, M. D., Detroit.
A. J. MacKenzie, M. D., Port Huron.
J. G. R. Manwaring, M. D., Flint.
F. B. Marshall, M. D., Muskegon.
W. H. Marshall, M. D., Flint.
B. H. Masselink, D. D. S., Grand Rapids.
Helen S. Mitchell, Ph. D., Battle Creek.
A. R. Moon, M. D., Saginaw.
M. A. Mortensen, M. D., Battle Creek.
E. N. Nesbitt, M. D., Grand Rapids.
W. S. O'Donnell, M. D., Ann Arbor.
J. P. Parsons, M. D., Ann Arbor.
F. A. Poole, M. D., Lansing.
J. H. Powers, M. D., Saginaw.
H. E. Randall, M. D., Flint.
Theo. Raphael, M. D., Ann Arbor.
J. A. Reeder, M. D., Clare.
H. A. Reye, M. D., Detroit.
H. M. Rich, M. D., Detroit.
U. G. Rickert, D. D. S., Ann Arbor.
E. P. Russell, M. D., Ann Arbor.
Suzanne B. Sanderson, M. D., Detroit.
B. A. Shepard, M. D., Kalamazoo.
N. Sinai, M. S., Ann Arbor.
E. W. Sink, M. D., Ann Arbor.
C. C. Slemons, M. D., Grand Rapids.
R. R. Smith, M. D., Grand Rapids.
F. R. Snyder, M. D., Ann Arbor.
E. D. Spalding, M. D., Detroit.
W. J. Stapleton, Jr., Detroit.
Claire Straith, M. D., D. D. S., Detroit.
John Sundwall, M. D., Ann Arbor.
Miss Tenny, Lansing.
A. C. Thompson, D. D. S., Detroit.
L. C. Towne, M. D., Lansing.
Mary Trafford, R. N., Kalamazoo.
Pearl Turner, Lansing.
T. J. Werle, Lansing.
J. A. Wessinger, M. D., Ann Arbor.

The Michigan Public Health Education program is now well beyond the experimental stage. It is a going concern. Interest on the part of the people of the state is very marked, as is shown by the increasing number of calls for these lectures. A careful study of the whole subject of the effectiveness of the Health Education program during the past year leads to the conclusion that the best results are obtained through the medium of Parent-Teacher Associations and high school assemblies. By all odds the most effective work carried on under the auspices of the Joint Committee during the past year was that in connection with addresses given to high school students. Experience proves that children of high school age are interested in information which has to do with the efficient use of their bodies. The human body is a machine, more complicated in structure and more wonderful in its operation than that of the automobile or the radio set. There is no reason why the future generation of Americans should not understand that science applies just as definitely to this human machine as it does to the mechanical devices found today in every shop and home.

The hope of developing an intelligent public opinion, so far as scientific medicine is concerned, lies in the education of the children of the state. It is hoped, therefore, that during the coming year an increasing number of lectures may be given to the students of our high schools. It is hardly necessary, however, to add that interesting and forceful speakers are required to hold the attention of a high school audience. As far as possible, lecturers who appear before student audiences should be provided with illustrative material of some sort, such as simple apparatus, charts, or slides.

In conclusion, I desire on behalf of the Joint Committee to express appreciation of the very valuable services rendered by the physicians of the state and others who have volunteered their services in this work. At present we have on our speaking staff 240 speakers, offering more than 400 subjects. We still need, however, more speakers, especially for sections in the western and northern parts of the state.

W. D. Henderson,

Sec'y. Joint Committee.

Ann Arbor, Mich., Oct. 5, 1925.

A MINIMUM PROGRAM

For

COUNTY MEDICAL SOCIETIES

Section 1.—Scientific—

(a) Ten meetings are to be held during the year. Local speakers are to appear before three meetings with definite planned discussions.

(b) A program of physical examinations shall be instituted in which all physician members shall agree to have a complete physical examination themselves and each shall agree to secure at least five patients who will agree to have complete physical examinations.

Section 2.—Social and Informal Activities—

Each Society is to have at least three dinner meetings. The speakers for these meetings shall be public speakers, educators, financiers, but not medical men. At least one picnic shall be held. At least one social evening, in co-operation with members of closely related organizations shall be arranged.

Section 3.—Scientific Teams—

Each Society shall have a group of two or three members who will prepare a program and give it on request before at least three other Societies.

Section 4.—Public Health Information and Education—

Each Society shall plan to have at least one Public Health lecture group which shall give at least five lectures in cities and communities outside of their resident communities or cities. Adjoining counties are to be included. Each Society shall co-operate and assist other organizations so that the following public lectures may be held. (Co-operation shall be established with the Extension Department of the University of Michigan, and the Joint Committee on Public Health.)

1 lecture for each High School.
1 lecture for each Parent-Teacher Association.
1 lecture for each Luncheon Club.
1 lecture for each Woman's Club.
1 lecture for each Association of Commerce.

Section 5.—Publicity—

Each meeting, scientific or public, shall be reported to the local newspapers in such form that at least one important point of value can be read by the reader.

The Secretary shall report each month to the State Medical Society the complete record of all activities and accomplishments.

HOSPITAL SUPERVISION OF OBSTETRICS

Hospitals have a definite public responsibility in protecting the interests of patients admitted for treatment. That responsibility extends beyond mere nursing and feeding; it is concerned with professional attendance. To that end the hospital that is alert to its responsibilities voices it by certain regulations and rules. We are glad to impart the type of regulation that is exercised by many of our hospitals as evidenced by the following rules:

THE USE OF FORCEPS IN OBSTETRIC CASES—REPORT OF COMMITTEE

1. High forceps should never be applied unless their use is concurred in by competent consultation.

2. Forceps should not be applied in medium or deep transverse arrest until sufficient time has elapsed for proper molding of the head to have taken place, usually one and one-half to two hours, providing there are firm uterine contractions.

3. When the head is on the perineum, a period of one to two hours should elapse before the application of forceps is made. The fetal heart rate must be watched and in case of marked increase, or an unusual slowing, the application of low forceps should be considered. If retardation is due to a rigid perineum in the absence of uterine inertia, episiotomy should take precedence over the application of forceps.

4. In persistent occiput posterior positions where the uterine contractions are becoming weak with no evidence of spontaneous rotation and the head is firmly engaged, forceps should be applied according to the Scanzoni maneuver.

5. In breech deliveries where there is difficulty in delivering the aftercoming head forceps should be used in preference to unrestricted traction on the neck, after the Smellie-Veit maneuver.

6. In general, face presentations contraindicate the use of forceps.

7. Contracted pelves contraindicate the use of forceps unless sufficient molding has been allowed to take place, and it is evident that slight traction by forceps will suffice to deliver the head.

GENERAL NOTES

(a) Careful detail should be given to the preparation of the patient and the same strict aseptic technic as for any major surgical operation should be carried out in minute detail. The patient should be completely anesthetized and in case of slight disproportion between the diameters of the head and the pelvis, the modified Walcher position should be utilized. The patient should be catheterized.

(b) Accurate diagnosis of the position of the fetus should be made. The forceps blades should be applied over the parietal bosses in all cases. If the forceps blades are properly applied they will lock in position without the use of force.

(c) After forceps are applied traction should be made gently at intervals of about one minute. In the interim the forceps should be unlocked. When traction is being applied it should always be in such a manner that the curve described by the blades corresponds to the curve of the pelvic canal, thereby preventing damage to the maternal soft parts.

The above instructions and rules were adopted as mandatory on all physicians and surgeons practicing obstetrics in the Grace Hospital by the attending medical staff, October 13, 1925.

Milton A. Darling, Chairman.
R. Milton Richards,
George B. Hoops,
H. G. Bevington,
Earl W. May.

At the May, 1925, meeting of the Attending Medical Staff, the following resolution was adopted:

"RESOLVED, That the following operations be not carried out in the hospital except after competent consultation, consultants to leave findings in writing:

"(a) Therapeutic Abortions
"(b) Caesarian Sections
"(c) Craniotomies."

At the June, 1925, meeting of the Attending Medical Staff, the following rule was adopted:

"That sterilization, where no pathology is present, shall not be performed without the written consent of the patient and the husband or wife."

Attention is also called to the fact that at the December, 1924, meeting, the following minimum requirements for any surgeon wishing to operate at the Grace Hospital, were adopted:

"1. Education: Graduate of a Class A college.

"2. Experience: At least one year of hospital work and two years as assistant to a trained and competent surgeon.

"3. Shall demonstrate that he is well grounded in surgical anatomy and pathology and competent in diagnosis."

The Grace Hospital,
W. L. Babcock, Director.

DEDICATION OF THE UNIVERSITY HOSPITAL

On November 19, 20 and 21 the new hospital of the University of Michigan was formally dedicated. After a six-year period of construction this building has been completed at a cost of nearly four million dollars. The building is a nine-story face brick construction, entirely fireproof and adequately ventilated. The wards are on the first floor and the operating rooms are so situated that they have an outlook on the Huron river and the hills beyond. The x-ray department is located on the ground floor and below this is housed the department of pathology. Larger amphitheaters are available for teaching purposes.

The hospital, under its new system, comprises several departments, including the department of business, registration, social service, nursery, dietetics, housekeeping, records and others. To enable the entire unit to properly function a staff of about 1,500 will be required. This will include medical staff, internes, nurses, social service workers, kitchen and ward help, janitors, porters, maids and others necessary for the upkeep of the building. The new Couzens home for nurses has been finished and is now occupied by the undergraduate nurses. This building compares favorably with other women's dormitories on the campus.

A program of addresses and clinics was given in connection with the formal opening of the

new hospital. Dr. William J. Mayo of Rochester, Minnesota, gave an address at the Natural Science Auditorium at 4:15 p. m., Thursday, November 19th. This was the annual Mayo lecture and was attended by the entire student body of the medical department as well as by many visiting physicians. The subject was "Splenic Syndromes." After reviewing the latest ideas of the function of the spleen, Dr. Mayo reported 413 cases of splenectomy at the Mayo clinic. These were tabulated as to pathology and the results of treatment.

The formal dedication occurred on the evening of November 19th. At this meeting, held in the Hill Auditorium, President Clarence C. Little presided. He very briefly spoke of the hospital and its relation to the community and the state, and then in a most appropriate and gracious manner introduced the distinguished speakers of the evening. The first speaker of the evening was our own Victor C. Vaughn who, for forty-five years was a teacher and for thirty years dean in the medical department of the University. His address had to do with the history of the organization of the medical department and its development up to the present time. He paid fitting tribute to the many distinguished teachers who have served on its faculty. He also paid tribute to the many distinguished graduates who have honored the university by their achievements as clinicians, teachers and investigators in medicine. The second speaker was Dr. W. S. Thayer, Professor of Medicine at Johns Hopkins. His address was highly interesting and scholarly. Among other interesting features was a discussion of full time professorships in the medical department. The last speaker of the evening was Dr. William J. Mayo, who is himself a graduate of the medical department of the University of Michigan and one of its most distinguished alumni. He declared that the hospital of the present time and of the future would find its greatest work in the prevention of disease rather than in its cure. He spoke of the hospital's responsibility in furnishing postgraduate instruction to physicians of the state as well as the work of furnishing instruction to the undergraduate students of medicine. In conclusion he said that the health of the people should be the first consideration of a government.

On Friday evening a second general meeting was held at the Hill Auditorium. The meeting was presided over by Dr. Hugh Cabot, dean of the medical department. Dr. H. A. Haynes, director of the hospital, was the first speaker. He outlined the program of the directors of the hospital. The hospital should be a community health and educational center, devoting its energies to preventing disease as well as curing the sick. He described a three-fold program of service to the State of Michigan, through the training of doctors and nurses, caring for

University Hospital

the sick, and the carrying out of research in the problems of medical science. Dr. J. B. Herrick, professor of medicine of Rush Medical College, University of Chicago, prefaced his remarks by saying that no hospital fulfills its highest function unless it stresses the educational side of its program. He pointed out that the lessons learned in hospital service should be of benefit to society as a whole. Dr. C. P. Emerson, dean of the medical school at the University of Indiana, spoke of the responsibility of the hospital to render a service to the entire state as well as to the individual patient. Many of the social and economic problems of the race have their basis in physical ills. He emphasized the importance of the social service workers.

Dean Cabot closed by reminding the audience that the hospital was the property of the whole state and not of a group of individuals. He urged the physicians of the state to offer their criticisms of hospital policies, saying that co-operation by all concerned is essential for success.

Friday morning at the hospital, especially interesting clinics were held by Doctors W. J. Mayo and W. S. Thayer. Luncheon was served to visiting physicians at noon. The hospital was open for general inspection from 1:30 to 2:30. Friday afternoon and Saturday morning was given up to clinics given by representative physicians of the state. A list of these clinics is given below.

Friday, November 20, 1925:

AMPHITHEATRE

1:30—Basal Blood Pressures.
Dr. F. J. Sladen, Detroit.

2:15—X-ray Aspects of Some Heart and Aortic Diseases. Dr. A. W. Crane, Kalamazoo.

3:00—Diseases of the Chest.
Dr. J. S. Pritchard, Battle Creek.

3:45—Acute Infections of the Pelvis.
Dr. A. M. Campbell, Grand Rapids.

PATHOLOGY AMPHITHEATRE

1:30—Treatment to be Advocated in Different Types of Malignant Disease.
Dr. J. W. Vaughan, Detroit.

2:15—Thoracic Aneurysm.
Dr. W. H. Marshall, Flint.

3:00—Subject to be announced.
Dr. H. E. Randall, Flint.

3:45—Hernia.
Dr. G. A. Seybold, Jackson.

ASSEMBLY ROOM

1:30—Subacute Bacterial Endocarditis.
Dr. J. T. Sample, Sabinaw.

2:15—Foreign Protein Therapy in Treatment of Typhoid Fever.
Doctors J. H. Powers and R. M. Kempton, Saginaw.

3:00—Tuberculosis in Childhood.
Dr. B. H. Douglas, Northville.

3:45—Fractures of the Forearm.
Dr. O. L. Ricker, Cadillac.

Saturday, November 21, 1925:

AMPHITHEATRE

9:00—Arteriosclerosis and Essential Hypertension.
Dr. C. G. Jennings, Detroit.

9:45—Diverticulitis of the Sigmoid.
Dr. Max Ballin, Detroit.

10:30—Gynecological Cases.
Dr. R. R. Smith, Grand Rapids.

11:15—Surgery of the Gall-bladder.
Dr. A. McLean, Detroit.

PATHOLOGY AMPHITHEATRE

9:00—Some Phases of Industrial Ophthalmic Surgery. Dr. D. M. Campbell, Detroit.

9:45—Cholecystography.
Dr. J. T. Case, Battle Creek.

10:30—Pneumonia.
Dr. G. E. McLean, Detroit.

11:15—Management of Wolfe Grafts.
Dr. Ferris Smith, Grand Rapids.

ASSEMBLY ROOM

9:00—The Anaemias of Infancy and Early Childhood. Dr. T. B. Cooley, Detroit.

9:45—Goitre.
Dr. R. H. Harris, Battle Creek.

10:30—Diseases of Digestive Tract.
Dr. B. C. Lockwood, Detroit.

11:15—Pulmonary Tuberculosis.
Dr. J. T. Watkins, Detroit.

LARGE LECTURE ROOM

9:00—The Borderline Pelvis.
Dr. Geo. Kamperman, Detroit.

9:45—Glaucoma.
Dr. G. M. Waldeck, Detroit.

10:30—Goitre.
Dr. C. E. Boys, Kalamazoo.

11:15—Carcinoma of Breast.
Dr. R. E. Balch, Kalamazoo.

Friday, November 20th, the Department of Dietetics will have diets on display in the Dietetic Laboratory, G 114, Ground Floor. These diets are typical of those used in the University Hospital for the following diseases and conditions:

Diebetes, Nephritis, Obesity, Hypothyroidism, Gastric Ulcer, and also such diets as Post-operative, Cardiac, Laxative and Anti-Laxative.

The arrangement for guides, ushers and registration will be in charge of "The Galens."

Editorial Comments

The meeting of the Joint Committee on Health Education was held in Ann Arbor on October 6, 1925. The following members were present: Doctors Cabot, MacCracken, Warnshuis, Jackson, Lyons, Dempster, Huber, Sundwall, Mr. Werle, Miss Alice Lake appointed to represent the State Nurses Association and Professor Henderson. There were also present as guests, the following: President Little, Dr. Darling, Dr. Clark, Dr. Bruce, Dr. Sinai, and Mr. H. G. Smith.

The major portion of the meeting was devoted to the consideration of reports of special committees as follows:

1. Committee consisting of Doctors Dodge, Cabot and Warnshuis. Report on the relation of the nursing service of the state to the health service. This report was presented by Dr. Cabot. (See attached copy of report, marked No. 1).

After the reading of the report there was a discussion of the subject by President Little, Dr. Sundwall, Dr. Huber and Miss Lake. It was moved and carried that the report be accepted and be made available for publication in the State Medical Journal. The committee was continued and directed to make a report on the plan for the education in colleges and universities looking toward nursing and child hygiene.

2. Report of the committee consisting of Doctors Jackson and Biddle, and Mr. Werle on publicity as relating to the health programs. This report was read by Dr. Jackson. (See attached copy of this report marked No. 2).

It was moved by Dr. Cabot that the committee on publicity be continued with power to add to its membership as may be desired, and with instructions to create a press bureau. Motion carried.

3. Report of Dr. Warnshuis relative to the cooperation of the Joint Committee with the Gorgas Memorial Committee of the American Medical Association, relating especially to the distribution of health material. (See attached data marked No. 3).

Motion that the report be accepted and filed. Carried.

4. Report of the committee consisting of Doctors Henderson, Huber, and Sundwall on the matter of lecture outlines, literature, and bibliography which may be of use to members of the health lecture staff. Mr. Henderson, as Chairman of the Committee, called upon Dr. Huber and Dr. Sundwall to make individual reports. Dr. Huber's report dealt with the subject of lecture outlines and bibliographies, especially as relating to material available in the University Library. Dr. Sundwall called attention to printed lecture material as outlined in the Harvard Health Lecture Series and also the National Health Series. (See data marked No. 4).

It was moved and carried that the Secretary be instructed to write each member of the speaking staff, calling attention to the lecture outlines and published material for use in connection with preparation of health lectures and also calling the attention of members of the speaking staff to the fact that slide material may be obtained by writing Dr. MacCraken, Dean of the Detroit College of Medicine and Surgery.

We have repeatedly called to the attention of our members, the matter of reporting malpractice threats. By this is meant threats to commence claims or suits for civil damages wherein is alleged malpractice, error or mistake, or other claims for damages resulting from the conduct of your profession.

Alleged claims and suits have been constantly increasing. The current year has been the most productive of such claims and suits and we urge you to be constantly on your guard. Many lawsuits can be avoided by prompt attention to claims made by patients. Investigation made preliminary to a lawsuit, including a medical examination or other facts obtained in the investigation, presents, even to an attorney who is contemplating bringing suit upon a matter, a discouraging factor.

These so-called blackmail claims becoming lawsuits have demonstrated their influence toward creating not only unfavorable notoriety for the professional man, thus affecting him in his community, but also in creating unfavorable and erroneous public opinion regarding the entire profession.

The causes of the present condition and of the rapid growth of malpractice and blackmail claims and suits are manifold. However, the most important is lack of prompt attention to such claims at their inception. Therefore, we urge prompt notice of any event or occurrence arising that may result in a claim or suit being brought against you.

The movement for social control through education has recruited a new ally in eyesight conservation, which enters the literature of this growing field with a volume embodying the findings of a survey in education, industry and kindred pursuits. The work, published by the Eye Sight Conservation Council of America, with headquarters in New York, says that eyesight conservation has attained the dignity of a "definite organized movement," initiating" in a broad constructive way a compresensive program of nationwide proportions."

The compiler is Joshua Eyre Hannum, M. E., research engineer of the Council, and the editor is Guy A. Henry, the Council's general director. The volume, its sponsors explain, is issued in response to the need for a general review of the entire subject. It condenses the results of an exhaustive study, comprising a summary of the literature of the field since 1914 and the results of original research and investigations conducted by the Council.

Studies were made of the statutory provisions of all states relating to vision tests of school children, and surveys of the public school systems of 250 of the largest cities in the United States, of 300 normal schools and teacher's colleges, of 750 colleges and universities, and of 750 industrial and commercial establishments.

The literature of eyesight conservation has been widely scattered and not until the appearance of this volume has it been available for the use of government and social agencies, educational institutions, parents and teachers, and the general reader. Such terms as "normal vision" and "defective vision," concerning which confusion is said to exist both among writers and the public, are defined. "Defective vision" and "defective eyes," we learn, do not have the same meaning, the first being always the result of defective eyes, but the second not always resulting in defective vision.

There are chapters dealing with Eye Hygiene, Eye Diseases, Eye Defects, Eyesight and Education, Eyesight and Occupation, Eye Protection, and Illumination. The concluding chapter comments interestingly on the struggles with poor eyesight of noted persons including Francis Parkman, Tschaikowski, George Eliot, William Wordsworth, Theodore Roosevelt, Goethe, Margaret Fuller, Jonathan Swift, John Greenleaf Whittier, H. G. Wells, Honore de Balzac, Adelaide Ristori, Basil King, Taine and Nietzsche. Whittier, it is said, was color blind, and Taine was cross-eyed. Relentless use of the eyes, according to the volume, hastened the death of Balzac.

The statistics presented of defective vision among school children and industrial workers are a challenge to the social system. Prevalence of this fault is so widespread as to cause not only heavy econ-

omic and health losses, but to disclose a seemingly significant clue to the growth of truancy and crime.

Simple visual acuity tests, for example, reveal that 25 per cent of the school children in the public schools of the United States have manifest defects of vision and symptoms of eye-strain. Conditions much more serious were found to exist in the country's workshops.

The preface expresses the hope that the book "may be instrumental in arousing greater interest in a subject of vital importance to society."

In every progressive movement that builds for the future investigation will usually reveal some one man, with vision and zeal, giving of himself that the end sought may be attained. Frequently we do not learn of the extent of their efforts until months and years have gone by. Sometimes not until their death has occured. We are at all times eager to record such individual efforts and accord credit—in this instance posthumous—by publishing the following personal letter. Note the date:

May 15, 1903.

My Dear Doctor Amberg:

I spent the morning in the Atty-General's office gathering up the fragments of the Nottingham Bill. After the smoke has cleared away and the Bill has been signed it will be found that Michigan has the best Medical Act in the United States. We had a hard and nasty fight, but I want to impress upon you that We Won Out. However, do not talk of this until after the Bill is signed. I have been working 20 hours a day since Sunday, last, and have lost 25 pounds in weight, but feel good, nevertheless. In haste,

Yours very sincerely,

B. D. Harrison.

Elsewhere in this issue will be found an article on "The Problems of the Profession," by Dr. M. L. Harris, Chairman of the Judicial Council of the A. M. A. We commend the reading of it to every member of the profession. It contains some very pertinent observations and advances suggestions that may well be instituted. Do not lay this issue aside until you have read this article.

Periodic physical examination presents the profession with its greatest opportunity to render service to all people. Due to the profession's efforts, the so-called scourges have been practically conquered. Typhoid, diphtheria, yellow fever, malaria, may well be classified as preventable diseases, and tuberculosis seems to be well in hand. Heart disease bids well to become the King of Death and is closely followed by renal diseases. By educating the people to "Kill the disease before the disease kills them," we will add years to the span of human life. It can be done if we will but spread the advice to have a yearly, thorough physical examination. This is a movement of service to which unstinting support should be subscribed by every doctor.

Much thought and consideration must be given for the solution of our nursing problem and the determination as to the scope of subjects that are requisite for the training school curriculum. The subject was well summarized by a reviewer of a Nurse's text-book when he wrote: "It may be said of nurses that no matter how many college degrees they bear, how many honorary keys they have won or how many text books they have read, the ART of nursing is learned in the hospital ward. The gift of administering gently to the sick is heaven born. The good nurse has a gentle hand and a noble heart, and strives to serve and to heal." And yet there are those misguided educational theorists and idealists who want to pump in nursing education in the class room and who ignore the bedside practice and experience. Our Training Schools need setting aright more badly than did our medical colleges twenty-five years ago. Why not start?

The Council of the Chicago Medical Society adopted a resolution concerning free medical services in hospitals and clinics. The Council held that the Chicago Medical Society should take the initiative in defining medical charity and approved free medical service to all who receive charity of any kind or description. The Council views with alarm the tendencies of hospitals, social agencies and health departments to pauperize the public by giving free service to those who can afford to pay even a part of the usual fee, and concluded that members of the Chicago Medical Society who aid such institutions in pauperizing the public may be brought before the ethical relations committee. At last we have a large, influential medical society that has awakened to the situation and which is apparently now determined to regain the control that they as well as all other medical societies have relinquished by permitting laymen and women to dominate our charity work. More power to the Chicago Medical Society to which we extend the hope that they will successfully initiate this needed reform. May the ethical relations committee deal severely with all those who seek for self-glory in attempts to obstruct the renovating process. Michigan needs a similar movement to abate the abuse of our charity service. Gentlemen, it is time you began to assert yourselves.

This issue contains our yearly index of articles, editorials and authors. We urge that you bind the twelve issues of this volume in order that you may have for reference and permanent record the progress that our Society has made during the past year.

Among Our Letters

NOTE.—*This department is the open forum of our members. Your communications and discussions are welcomed. Anonymous communications cannot be accepted, though at times names may be omitted by the Editor. Personalities will not be printed and responsibility for opinions is not assumed. We invite your interest in this department. Address: The Editor, Journal, Michigan State Medical Society, Powers Theatre Bldg., Grand Rapids, Mich.*

Editor of The Journal:

Your letter of the 12th, inst., forwarded from Flint, has just reached me.

It was a gracious and friendly act of my good old State Society to confer honorary membership. I am full of appreciation and the degree of satisfaction is greater than that following any previous courtesy extended by my professional associates. And "associates" they are and will continue to be, in sentiment, although I have followed the memorable advice of the distinguished Osler, and no longer enjoy close working relationship with them.

An admirable body of men and women, this Michigan State Medical Society. And it has always been thus, but how they could scrap in the olden days. My thoughts hark back to the first meeting I attended. It was held in Lansing under the presidency of Foster Pratt, of Kalamazoo. His address written in excellent literary style on "Newcomer—Van Deusen Case," was convincing propaganda. It cleared away misapprehensions in my own mind and tended to make desirable the position subsequently offered me at Pontiac.

Those were piping times in the old organization —the days of Pratt, Maclean, the elder Frothingham, McGraw, Jas. A. Brown, Noyes, Farrand, Jerome, McCall, Rauney, Griswold, Brodie. Some of these had a peaceful strain in their make-up—all were picturesque. A considerable contingent among them waged relentless warfare and "unconditional surrender" was the motto of both sides. Of Brodie it was related that he once declared, "I don't care a damn whether I fight with the majority or with the minority, so long as I fight."

They wasted time over non-essentials, no doubt, but at all events the atmosphere was never foggy and their debates were a refreshment and joy. I do not recall the election in those days of resident honorary members and gravely doubt whether any candidate made the goal.

Then came the era of reorganization—of peace, plenty and prosperity, of good will and get together. Here was an opportunity for honorary memberships and the subscriber cannot cease felicitating himself that he survived the storm and stress period and through living long enough is now able to cast anchor in this safe harbor.

Thank you all again and again. You have been mighty good to

Yours devotedly and always

C. B. Burr.

P. S.—The allusion above to honorary membership is not to be taken altogether seriously. Elections were certainly not numerous, but I recall, indistinctly, that Ranney was made honorary member after serving many years as Secretary.—C.B.B.

Editor of The Journal:

In the November number of the State Journal the address of the retiring president and reports of the various committee chairmen of the Wayne County Medical Society gave a rather detailed idea of this branch of the State Society organization during the last twelve months. With the beginning of the new year we have been unusually fortunate in the meaty character of the papers that have been presented before us. Among the speakers in the two months of the year that has gone by there are included:

Loyal E. Davis, M. D., Professor of Neurology, Northwestern University, Illinois, on "Prognosis of Brain Tumor."

Hugh Cabot, M. D., Dean and Professor of Surgery, University of Michigan Medical School, on "Diagnosis and Methods of Attack upon Tumors of the Kidney."

Chas. L. Mix, M. D., Professor of Medicine, Loyola University School of Medicine, Chicago, on "Toxic Goitre."

"Indications for Thoracic Surgery in Pulmonary Tuberculosis." Medical Aspect—Herbert M. Rich; Surgical Aspect—Max Ballin, M. D.

John R. Caulk, M. D., Associate Professor, Washington University Medical School, St. Louis, on "The Punch Operation and Its Indications."

Henry A. Christian, M. D., Hersey Professor of Theory and Practice of Physic, Harvard University Medical School, on "The Achlorhydria Family Tree of Diseases."

C. D. Camp, M. D., Professor of Neurology, University of Michigan Medical School, on "Vascular Changes as They Affect the Nervous System.

Very truly yours,

Richard M. W. Keen, Secretary.

Editor of The Journal:

We are sending you under separate cover a copy of the resolution passed unanimously by the Council of the Chicago Medical Society at its November meeting.

The resolution spoke for itself and we believe proper action should be taken by your State Council as well as your component Secretaries.

If we stop this constant encroachment on the life work of the physician it must be done at the earliest possible moment, and this is not too soon.

Very truly yours,

Chicago Medical Society.

R. R. FERGUSON,

Chairman of the Council.

The Secretary presented the following Resolution:

RESOLUTIONS

Whereas, The American Public Health Association at its Annual Meeting in St. Louis, in October, 1925, listened to an Address by one of its members, favoring a new doctor in each community where a Health Officer is needed, to be known as a Doctor of Public Health, and

Whereas, Several institutions of learning have introduced courses in Public Health whereby a layman as well as a physician, may be instructed and in a comparatively short time qualify as a Doctor of Public Health, (D. P. H.) and be allowed to advise, qualify and practice preventive medicine, and

Whereas, In all probability a Bill to license a so-called D. P. H., will be introduced into the next session of the State Legislature of Illinois, and

Whereas, The Chicago Medical Society believes that all Health Officials should first be physicians, (M. D.), who have the proper knowledge of the sciences concerned in Public Health, and that such knowledge cannot be gained by any layman in two or three years, and

Whereas, Sush an arrangement of a layman being a Health Official, places a double expense on the community, since it is necessary for the com-

munity to then procure the service of an M. D., in addition to a layman, and

Whereas, The State confers on an M. D. the right to practice medicine and surgery in all its branches, while the special licensing of a D. P. H. would be special legislation tending to take from an M. D. that right.

Therefore Be It Resolved, That the Chicago Medical Society believes all positions of trust pertaining to Public Health in any community should be held by physicians, (M. D.) and not by laymen holding D. P. H. licenses, and

Be It Further Resolved, That the Chicago Medical Society views with displeasure any move on the part of the American Public Health Association, which may express a desire to replace physicians as Health Officials by laymen with D. P. H. licenses, and

Be It Further Resolved, That a copy of this resolution be sent to the American Public Health Association; to all those institutions of learning where courses in Public Health are given with a view to conferring a D. P. H. Degree; and to every State Medical Society with a request that their component County Societies be made acquainted with the proposed activities of a Public Health Association, whose President is a layman.

ADJOURNMENT

Motion was carried that this Resolution be adopted.

On motion the meeting adjourned.

Frank R. Morton, Secretary.

Editor of The Journal:

I can assure you that the doctors in Oakland County should share equally with me the honor of this welcome event, the Past Graduate Conference. After a lifetime spent in the practice of medicine in Oakland County I can say the spirit and friendly co-operation of the physicians throughout the county has grown better year by year. The Post Graduate Conference was worth while from every point o fview. Unfortunately for me, more than half the program was combed out in my absence. However, all with whom I have spoken have nothing but praise for it. The sessions at the Presbyterian Church were presided over with dignity and the character of the addresses so high that all present listened with attention throughout the day.

The evening meeting at the High School Auditorium, though none too well attended, addressed by Dr. Sinali was just what the laymen should know more about. The story was so simple and plain that any one could understand and at the same time was really eloquent.

The teaching and practice of medicine is now launched upon a genuine adventure, teaching on higher levels of humanity at our universities—medicine is slowly and painfully coming to its best—undoubtedly advancing. Our Medical Societies may some day be an extra mural division of university extension. There is no reason why graduation should be a separation or a sessation from many of the associations and some of the activities of University life.

The most cherished treasure of every alumnus is his intimate relation with teachers who have led him to greater effort, more rational thinking and given him a desire to achieve something worthy of mankind.

The hardest problem connected with the general practice of medicine is the isolation of the rural and suburban practitioner. To me this condition is more apparent than real. The monthly meeting of the County Medical Society, the more frequent meeting of the district society, a closer relation to our State Society and affiliation with the Medical School nearest to our field of labor will lighten these difficulties. Patience, brother, do not falter.

Yours sincerely,

N. B. Colvin, Pontiac, Mich.

State News Notes

Governor Groesbeck has re-appointed the following men on the State Board of Registration in Medicine: George L. LeFevre, Muskegon; Albertus Nyland, Grand Rapids; Ray C. Stone, Battle Creek; Nelson McLaughlin, Detroit; Guy L. Connor, Detroit.

Dr. C. B. Burr, of Flint, is spending the winter in Los Angeles.

Dr. W. T. Dodge assumed his duties on November 1st, as Chief Surgeon of the Michigan Soldiers' Home, Grand Rapids.

President Darling and Chairman of the Council, J. B. Jackson, represented our Society as Guests of Honor at the dedication of the new University Hospital on November 19th.

Dr. M. Fishbein, Editor of The Journal of the A. M. A. addressed the annual meeting of the Michigan Newspaper Editors Association on November 2nd, in Ann Arbor.

The new addition to St. Mary's Hospital, Grand Rapids, is rapidly nearing completion.

An examination was held by the American Board of Otolaryngology on October 19, 1925, at the Cook County Hospital, Chicago, with the following result:

Passed	120
Failed	23
Total Examined	143

The next examination will be held in Dallas, Texas, on April 19, 1926. Applications may be secured from the Secretary, Dr. H. W. Loeb, 1402 South Grand Boulevard, St. Louis, Missouri.

Dr. L. J. Hirschman, of Detroit, recently addressed the Northern Indiana Academy of Medicine on "Methods In Ano-Rectal Diseases."

Dr. L. W. Brown, Medical Examiner Pennsylvania Railroad in Grand Rapids for the past six years, has been transferred to Fort Wayne, Ind. He is succeeded in the Grand Rapids office by Dr. C. A. Leisher, who comes from Fort Wayne.

Our Society Business and Activities

HARVEY GEORGE SMITH

EXECUTIVE SECRETARY

NOTE: This Department will each month contain a discussion and report of our Society work and planned activities. Your interest and correspondence as to your problems is solicited.

POST-GRADUATE CONFERENCES

The past month has again demonstrated the fact that, "No activity of the State Medical Society has met with such unanimous approval as has that of the post-graduate conferences." Expressions of satisfaction come from the far end of the northern peninsula to the near neighbors of Detroit. At no place has a single word of disapproval been voiced, but on the contrary, words of praise and requests for more conferences. The conferences that continued to bring forth support from the membership of the County and State Societies are the following:

Ironwood	October 22
Grand Rapids	October 28
Pontiac	November 5
Saginaw	November 11
Port Huron	November 12

At Ironwood fifty doctors representing both Michigan and Wisconsin, met in conference. Nearly half of them drove from sixty to one hundred twenty-five miles and three, due to deep snow, ran over an embankment into a ditch fifteen feet deep, rolled over once in the car and, with the aid of lumber jacks a mile distant, were hauled out and continued the balance of the journey of fifty miles. No one was injured. The car was not damaged. Doctors who had not met for years shook hands and visited like old friends ought to visit.

In adition to the scientific program, two of the speakers talked to two high schools with an enrollment of twelve hundred pupils, and the Executive Secretary spoke to the Rotarians.

The following program was presented by speakers from Michigan and Wisconsin:

PROGRAM

10:30—Physical Examination with Demonstration.
John B. Youmans, M. D., Ann Arbor
11:00—Orthopedic Examination of the Patient.
G. J. Curry, M. D., Flint.
11:30—Diagnosis of Chest Diseases.
J. S. Pritchard, M. D., Battle Creek.
12:00—Luncheon.
Joint meeting with Bessemer and Ironwood Rotarians.
2:00—Diagnosis and Treatment of Diseases of the Cervix.
Carl Henry Davis, M. D., Milwaukee.
2:30—Myocarditis.
William J. Egan, M. D., Milwaukee.
3:00—Essentials and Methods on Laboratory Diagnosis. John B. Youmans, Ann Arbor.
3:40—Hypertension.
Willaim J. Egan, M. D., Milwaukee.
4:10—The Management of Fractures.
G. J. Curry, M. D., Flint.
4:40—Prenatal Care.
Carl Henry Davis, M. D., Milwaukee.
5:10—Causes and Treatment of Bronchitis.
J. S. Pritchard, M. D., Battle Creek.
6:00—Dinner.

The Grand Rapids conference brought out a larger attendance, but at the same time drew from a much larger membership. More than seventy doctors attended the conference, coming from Ottawa, Kent, Barry and Montcalm-Ionia Counties. The following program was presented:

PROGRAM

1:30—Opening Statements.
Councillor and Executive Secretary.
2:00—Physical Examinations with Demonstration.
Willard D. Mayer, M. D., Detroit.
2:30—Fundamentals of Neurological Examinations.
Carl D. Camp, M. D., Ann Arbor.
3:00—Diagnosis of Chest Diseases.
J. S. Pritchard, M. D., Battle Creek.
3:30—Interpretation of the Physical Examination of the Heart.
M. A. Mortenson, M. D., Battle Creek.
4:10—Mentality Tests.
Carl D. Camp, M. D., Ann Arbor.
4:40—Diseases of the Liver and Blood Vessels.
Plinn F. Morse, M. D., Detroit.
5:10—The Management of the Cardiovascular Case.
M. A. Mortenson, M. D., Battle Creek.
6:00—Dinner—Informal Talks.
7:30—Blood Vessel Accidents.
Plinn F. Morse, M. D., Detroit.
8:00—Cause and Treatment of Bronchitis.
J. S. Pritchard, M. D., Battle Creek.
8:30—The Kidney, Pyelitis, Nephritis.
Willard D. Mayer, M. D., Detroit.

The Secretary of the Kent County Medical Society, Dr. Homer T. Clay, reports as follows on the conference:

The nineteenth post-graduate conference of the Michigan State Medical Society was held in the Fifth Councilor District in Grand Rapids on October 28, 1925. The meeting was held in the Italian room of the Pantlind hotel and began at 2:00 p. m. Between 50 and 60 men attended the afternoon meeting to hear Dr. Wm. Mayer of Detroit, who gave a demonstration on the live subject of the principal points to be observed in the course of physical examinations. He was followed by Dr. Carl Camp of Ann Arbor, who demonstrated a method of making a fairly complete neurological examination in five minutes. After this, Dr. J. S. Pritchard of Battle Creek, gave a talk

on "The Diagnosis of Chest Diseases" and held the interest of his audience in his usual manner.

Dr. M. A. Mortenson of Battle Creek followed Dr. Pritchard with a talk on "The Interpretation of the Physical Examination of the Heart." Later in the afternoon Dr. Carl Camp emphasized the use and character of mentality tests. Following this, Dr. P. F. Morse of Detroit, gave a very interesting talk with demonstration of specimens on the subject of "Diseases of the Liver and Blood Vessels," and "Blood Vessel Accidents."

"The Management of the Hypertension Case" was ably discussed by Dr. M. A. Mortenson of Battle Creek.

At 6:30 dinner was served in the Rotary room of the Pantlind hotel and was attended by 70 members of the Fifth Councilor District. Several informal talks were given at this dinner, following which three other lectures were given by Doctors Morse, Pritchard and Mayer. Dr. Pritchard emphasized a new treatment of "Bronchitis," which consists of injecting iodized oil into the tracea and bronchi as originated by the French.

This was a very successful meeting and from the opinions obtained by talking with the men present, it was considered well worth their time and highly enjoyed. The adverse criticism offered was that the conference was not able to cover all the varying specialties of the day in which some of the men were interested. This certainly was a very successful post-graduate conference.

H. T. Clay, M. D.,
Sec'y. Kent Co. Medical Society.

Dr. Letts, President of the Macomb County Medical Society, said at the dinner following the conference, "He had never attended any medical meeting where he received so much valuable information for his practise as at the post-graduate conference for the First District." The Pontiac conference brought forth more words of approval and satisfaction than any yet held. In addition to the regular scientific program, a lay meeting was organized which was sponsored by the City Department of Health of Pontiac through Dr. Neafie in cooperation with the schools of the city and a number of the Parent-Teacher Associations. The newspaper of the city gave unstinted cooperation by not only asking for material, but demanding that "honest to goodness" information be furnished. The Joint Committee on Public Health Education secured Dr. Nathan Sinai of the Department of Health and Hygiene of the University of Michigan to give the lecture for the public meeting. Dr. Sinai most excellently interpreted in the language of the layman the science of medicine by discussing his subject, "Man and Microbes." More than four hundred were present.

The following scientific program was presented to the doctors:

PROGRAM

10:15—Opening Statements.
J. Hamilton Charters, M. D., Councillor.
Harvey George Smith, Executive Secretary.
10:30—Physical Examination with Demonstration.
Fred Coller, M. D., Ann Arbor.
11:00—The Essentials and Methods of Laboraotry Diagnosis. Don Kudner, M. D., Jackson.
11:30—The Acute Surgical Abdomen.
Fred Coller, M. D., Ann Arbor.
12:00—Luncheon—Presbyterian Church.
2:00—Prenatal Care.
Geo. A. Kamperman, M. D., Detroit.
2:30—Orthopedic Examination of the Patient.
F. C. Kidner, M. D., Detroit.
3:00—Miocarditis.
Walter Wilson, M. D., Detroit.
3:30—Pneumonia, Cause and Treatment.
G. L. McKean, M. D., Detroit.
4:00—Hypertension.
Walter Wilson, M. D., Detroit.
4:30—The Management of Fractures.
F. C. Kidner, M. D., Detroit.
5:00—Modern Obstetrics.
Geo. A. Kamperman, M. D., Detroit.
6:00—Dinner—Presbyterian Church.
8:00—Public Meeting—High School Auditorium.
Man and Microbes.
Dr. Sinai, Extension Dept., U. of M.

The conference at Saginaw was the first held in the district. Due to the wide-spread territory included, a number of doctors drove a hundred miles. Ninety members of the constituent societies of the district attended the conference, nearly half of them coming from the adjoining societies. A special feature of the confreence was a joint meeting of the doctors attending the conference with the Rotarians. Dr. Hugh Cabot, dean of the College of Medicine, spoke on "The Responsibilities of the People Toward Diseases" and Dr. C. G. Jennings on specialists. The following scientific program was presented:

PROGRAM

10:15—Opening Statements.
Julius Powers, M. D., Councillor, Chairman.
James S. Bruce, M. D., Councillor.
Harvey George Smith, Executive Secretary.
10:30—Essentials of the Physical Examination with Demonstration.
C. G. Jennings, M. D., Detroit.
11:00—Cardiac Irregularities.
Frank N. Wilson, M. D., Ann Arbor.
11:30—The Kidney—Surgical.
Hugh Cabot, M. D., Ann Arbor.
12:00—Luncheon—With Rotarians, Bancroft Hotel.
2:00—Basal Blood Pressures.
Frank Sladen, M. D., Detroit.
2:40—Common Skin Diseases with Case Demonstration. Udo Wile, M. D., Ann Arbor.
3:20—Treatment of Common Infections of the Kidney, Pyelitis, Nephritis, Etc.
C. G. Jennings, M. D., Detroit.
4:00—Infections of the Upper Respiratory Tract with their Constitutional Manifestations.
James S. Pritchard, M. D., Battle Creek.
4:40—Hypertension.
Frank N. Wilson, M. D., Ann Arbor.
5:10—Gall Bladder and Ulcer Surgery.
Hugh Cabot, M. D., Ann Arbor.

The Port Huron conference was the second to be held in the district during the year. That interest was keen and that the members of the district are sincere in their belief in the post-graduate conference was evidenced by the fact that the members came early and stayed even later than the last speaker had anticipated. The comments of the doctors present were to the effect that they came for information and not a single one was disappointed. More than fifty were present. The following program was presented:

PROGRAM

10:15—Opening Statements.
A. J. MacKenzie, M. D., Councillor.
Harvey George Smith, Executive Secretary.
10:30—Scarlet Fever.
George H. Ramsey, M. D., Lansing.
11:00—Fundamentals of Neurological Examination.
Carl D. Camp, M. D., Ann Arbor.
11:30—Common Skin Diseases, Diagnosis and Treatment.
Henry Rockwell Varney, M. D., Detroit.
12:00—Luncheon—Informal Talks.
2:00—Infections of the Upper Respiratory Tract with their Constitutional Manifestations.
Herbert M. Rich, M. D., Detroit.
2:30—Treatment of Infections.
J. W. Vaughan, M. D., Detroit.
3:00—Mentality Tests.
Carl D. Camp, M. D., Ann Arbor.
3:40—Feeding the Normal Infant.
B. Raymond Hoobler, M. D., Detroit.
4:10—Head Injuries.
Herbert E. Randall, M. D., Flint.
4:40—Problems in Infant Feeding.
B. Raymond Hoobler, M. D., Detroit.
5:20—Acute Surgical Abdomen.
J. W. Vaughan, M. D., Detroit.

The success of the five conferences was due to the interest and co-operation of the Councilors of the respective districts, the officers of the County Medical Societies and the members themselves, by helping to complete the plans for the various conferences. But no conference could be a conference unless there were speakers. If credit can be given to the members of the various societies for their interest, then unlimited credit is given to the speakers. Not a single one missed his appointment and every one gave up from one to two days' practice in order to help his fellow practitioner. "Serve your fellow man" is a good motto, and it has been completely exemplified by the speakers who have taken part in the post-graduate conferences.

PUBLICITY

That information on Scientific Medicine and Health is desired by publishers of newspapers is evidenced by the space given to publicity on the post-graduate conferences.

The newspapers of Ironwood, Grand Rapids, Pontiac, Saginaw and Port Huron interested and informed their readers by using five columns of space. Several papers gave front page publicity.

The following excerpts give some idea as to how the reporter and editor interprets and informs the reader on scientific medicine and health:

" 'Doctors cannot prevent disease unless the people of the community want their help and it is the duty of the community to see that it avails itself of medical knowledge,' Dean Hugh Cabot of the University of Michigan Medical Department declared in an address Wednesday before the Rotary club. Doctors of Saginaw and vicinity, who are holding a conference here, were present at the club's meeting."

"More than 50 physicians of St. Clair, Sanilac and Lapeer counties, representing the Seventh District, were meeting at the Harrington hotel today in the second annual clinical post-graduate conference of the Michigan State Medical Society."

"Dr. C. C. Young of the State Board of Health, Lansing, spoke on scarlet fever, showing graphically how a new anti-toxin recently invented is doing wonders in absorbing the disease by application before the patient has reached a severe stage."

"Throughout the morning addresses ran the thread of better and more thorough examinations and tests of patients, and the constant trend towards improved service."

"Dr. Fred Coller of Ann Arbor was heard in a talk in which he declared that ' with our present knowledge it is possible to diagnose 999 in every 1,000 cases.' He stressed the need of careful, thorough examinations rather than hurried, incomplete tests."

THE ANNUAL MEETING AND THE MINIMUM PROGRAM

No meeting of County Medical Societies offers better opportunity for the adoption of a program of activity than does that of the Annual Meeting. At this time all members are present, the officers and committees for the year closing, bring in their reports of progress recorded. New officers are elected or present officers are re-elected. Committees are appointed or re-appointed. Discussions follow by the members, some of whom may point out the progress made and the responsibilities of the society. Others may suggest what should be done in the future.

Among responsibilities the County Society is accountable to the following:

1. The best practice of scientific medicine within the society and the advancement of the science.
2. For fellowships and friendships among the doctors.
3. For fellowships and friendships between the members of the Society and the people.
4. For service to the community in giving information in the fundamental sciences, on leaders in Scientific Medicine and the

accomplishments in the Science of Medicine.

5. For the safeguarding of the health of the community.

6. For increasing knowledge and desire for knowledge in the Science of Medicine by the people of the country.

No plan has yet been evolved which permits of accomplishment by County Medical Societies like that of the Minimum Program. It is a guarantee to the responsibilities of a Society. The Annual Meeting should give opportunity for the adoption.

County Society News

CALHOUN CO.

The ninth regular meeting of the Calhoun County Medical Society was called to order in the Post Tavern, Battle Creek, by the vice president, Dr. J. A. Elliott, at 7:45 p. m., November 3rd, following dinner.

The minutes of the previous meeting, upon motion by Dr. Sleight, and seconded by Dr. Stone, were approved as printed in the Bulletin.

It was moved by Dr. Stone that physicians of Roosevelt Hospital and the U. S. Veterans Bureau, No. 100, who are members in good standing of other State of County Societies, be allowed to become associate members of our Society, and a nominal fee of one dollar a year to be paid by each associate member. Discussion by Dr. Haughey. Seconded and carired.

Dr. Elliott introduced the speaker, Dr. Geo. Curry, of Flint, who gave a short talk on the general management of fractures. He brought out points in the pathology with particular reference to the healing process, stating that actual bone formation was not complete until the end of one year. There was a very interesting and active discussion by many of the members present.

Attendance at dinner 21
Attendance at the meeting 35

The October meeting of the Calhoun County Medical Society was called to order in the Post Tavern, Battle Creek, at 8 p. m., with an attendance of fifty.

The minutes of the previous meeting were approved as printed in the Bulletin.

The minimal program as outlined by the State Society for County Medical Societies was freely discussed and after motion by Dr. Knapp, was unanimously carried.

The physical examination program is especially valuable by obtaining regular physical examinations of the members and secondly in bringing before the public the advantages of periodic health examinations.

Dr. Stone announced the second Post Graduate Conference for the third district would be held in Battle Creek on December 10th and would be devoted largely to therapeutics. It will be remembered that the first Conference for this district was held at Sturgis and was a huge success.

Dr. W. H. Riley, who is a member of the Society, gave an interesting address on "Abnormal Movements and Gaits," taking up the anatomy and physiology of the various spinal cord tracts involved. He illustrated the lecture by moving pictures of cases.

Meeting adjourned at 10 p. m.

—Dr. L. E. Verity. Secretary.

BAY CO.

Three very interesting meetings have been held in the past month as follows:

September 28th—The members and visitors were guests of Doctors Jones and Wilson, of Bay City, at the Wenonah Hotel. An elaborate chicken dinner was served followed by a symposium on the subject of "Carcinoma," by Doctors Julian Louden, J. M. McCormack of Toronto, and Mr. Norman Howard, City Bacteriologist of Toronto. Over 100 physicians were present, including guests from Saginaw, Flint and the Thumb district.

October 19th—Members of the Alpena Society put on a reciprocal program at Bay City, local members having presented a program at Alpena last May.

The subjects were, "The Practitioner vs. The Specialist," by Dr. Bell; "Kidney Injuries," by Dr. J. O' Donnell; "Influence of Weather Conditions on Health," by Mr. F. Jermin.

The program was an exceptionally interesting one.

October 26th—At 6:30 p. m. the Society was addressed by Dr. H. B. VanWyck, University of Toronto, on the subject, "Toxemias of Pregnancy." Dr. Van Wyck's paper, while technical and scientific, was a most practical one and was considered one of te most instructive of the year.

Dr. Plinn Morse, Detroit, will address the Society on, "Clinical Types of Nephritis," November 9th. Dr. L. Fernald Foster, Secretary.

MUSKEGON COUNTY

The Muskegon County Medical Society met as the guests of the Muskegon-Ottawa Dental Society in the banquet room of the Occidental Hotel at 6:30 p. m., November 13th. After dinner the evening was given to Dr. Chalmers J. Lyons of Ann Arbor, who gave a very instructive talk on epulis, misplaced third molars (causing pressure on branches of the fifth nerve and referred pains) or cysts of the maxillary bones. The talk was illustrated with lantern slides. The doctor answered many questions following the talk.

Many thanks to the dentists and to Dr. Lyons for the pleasant evening.

P. S. Wilson, Secretary.

TUSCOLA COUNTY

At the regular meeting of the Tuscola County Medical Society October 22, 1925, the following officers were elected for the year 1925-1926:

President, R. L. Dixon, Wahjemaga, Mich., Vice President, J. G. Maurer, Reece, Mich., Secretary-Treasurer, C. W. Clark, Caro, Mich., Member Mich. C. W. Clark, Secretary.

Medico Legal Committee, O. J. Johnson, Mayville,

Among the Books

A Review and Frank Appraisal of Medical Books That are Proffered to the Profession by Publishers.

THE SURGICAL CLINICS OF NORTH AMERICA—(Issued serially, one number every other month.) Volume V, Number IV. (Chicago Number—August, 1925.) 246 pages with 54 illustrations. Per clinic year (February, 1925, to December, 1925.) Paper, $12; cloth, $16 net. W. B. Saunders Company, Philadelphia and London.

SUBMUCOUS ENDOCAPSULAR TONSIL ENDUCLEATIONS—Charles Conrad Miller, M. D., Chicago.

One operator's views of tonsilectomy. A radical departure of present day methods.

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